Modelling goes to museums : experiential consumption, The Theory of Planned Behaviour and old and new museology

Thesis

Modelling Goes to Museums: Experiential Consumption, The Theory of Planned Behaviour and Old and New Museology

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Abstract

This study adopts a two-stage structural equation modelling approach to demonstrate the nomological validity and utility *of The Theory of Planned Behaviour* to both *predict* and to *explain* the visiting intentions of middle-class residents to social history museums within the next 12 months.

Working within an 'experience-based management approach' the present study provides both a *descriptive* contribution, in terms of identifying and providing significant improvements in the measurement of museum anticipated experiences and resource facilitators and constraints, as well as a *predictive* contribution, in terms of assessing the ability of *The Theory of Planned Behaviour,* and in particular, the relative contribution of attitudes, subjective norms and perceived behavioural control modelled with complex-summated-interactive antecedents, to explain museum visiting intentions. Particular attention is given to the neglected role of belief evaluation in previous museum and heritage studies in describing the *structure* and *structural dynamics* of anticipated museum experience opportunities. Furthermore, attention is given to the potential contribution of perceived behavioural control, and an understanding of an individual's resource constraints, to the experience-based management approach. A two-stage development of a summated-interactive-complex model is shown to overcome methodological and conceptual deficiencies which have been noted in previous expectancy-value attitude studies. In addition, this study examines the impact of the anticipated interpretative environment (physical designed space) on the museum experiential opportunities, control and social influences perceived by individuals, and compares the interpretative orientation of *The New Museology* (idea-based museum) to traditional mixes of museum interpretative media (object-based museum) in this respect.

A qualitative-quantitative research design was employed. Thirty extended qualitative interviews formed the basis of the study by providing a *'real lived'* understanding of common consumption experiences at heritage attractions, the resource problems associated with museum visits and the influences of social referents. Four hundred quantitative interviews with respondents from middle-class households formed the main focus of the study. Interviews were conducted using a systematic random sampling method applied in two spatially and demographically contrasting electoral wards of Edinburgh, Scotland. Across the spatial wards, respondents were randomly divided in two sub-groups (n=200). In each sub-group respondents were asked to evaluate a pictorial collage designed to capture

the interpretative orientation of either the New Museology or traditional approach to museum interpretative mixes.

The study highlights the superiority of interpretative media mixes common to *The New Museology* in raising the instrumental and experiential-process value individuals anticipate from this style of museum attraction. In doing so, the study finds support for the continued application of *The Manning-Haas Hierarchy of Demand,* where the importance of 'setting' in managing the consumption experiences of consumers is explicitly recognised. However, due to the 'egalitarian' objective of The New Museology, and the expected 'levelling' or increasing homogeneity observed between visitors and non-visitors to idea-based (The New Museology) in terms of anticipated experiential benefits and costs perceived in this museum environment, the present study finds the predictive ability of attitudes in *The Theory of Planned Behaviour* is reduced. For the idea-based museum, these findings raise some questions regarding the ability of the Manning-Haas Hierarchy, which is based on expectancy-value theory, to operate as a predictive model of motivation as it was intended. However, the present study does support the use of the Manning-Haas Hierarchy as a descriptive heuristic for product development alone. Subjective norms were not found to increase our understanding of museum visiting intentions, while the explanatory ability of perceived behavioural control was limited to idea-based museum attractions. Further, based on the significant contribution for past expereince to explain visiting intentions to the idea-based museum, the present study calls for further research to identify potential 'deficiencies' in explanatory variables needed to more fully understand the motivations of individuals to visit idea-based museums associated with The New Museology. Finally, the present study demonstrates the importance of both sub-group analysis in the Theory of Planned Behaviour in order to identify the moderating impact of past experience and gender on the relative impact of attitude, subjective norms and perceived behaviour control on museum visiting intentions.

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Chapter 1: Introduction

This introduction has several aims. Firstly, it provides the background to the thesis and highlights the need for a study of anticipated museum consumption and non-consumption focused both on conceptual and methodological concerns. To this end, it details the inter-disciplinary approach, which has drawn together the fields of social psychology, consumer behaviour, environment psychology, museum studies, leisure science and tourism management, to inform the research design and conceptual focus applied. Secondly, this Chapter identifies the specific aims and contributions of the present study to develop an understanding of museum consumption and, more broadly, experiential consumer behaviour and expectancy-value-based models. Finally, this chapter provides an overview of the structure of the thesis, highlighting in particular the justification for the Chapters and the sequential building of material that is combined in Chapters 7 and 8.

1.1 Study Background

> *"Museums, museums museums – they abound! We live in the museum age. There is a museum for virtually any subject you can name, somewhere in the world. there are museum devoted to fine art, to the decorative arts, to science, to industry, to technology, to natural history, and to regional history, to automobiles, to aircraft and all forms of transportation, to medicine, to criminology, to clocks, to watches, to musical boxes, to costume and textiles, to jewellery, to pottery and glass; to tin, copper, steel and according to a Wall Street Journal, there is even a museum devoted to nuts' (Sande 1992, p185).*

> *"Wherever the affluent information economy has spread, the need to re-examine the meaning of life through the arts has followed. Art and culture are becoming increasingly big business and Naisbitt and Aburdende provide some staggering figures: since 1960 Japan has built more than 200 new museums, West Germany in just ten years has some 300 and in the United Kingdom museums have been opening at a rate of one every 18 days. Visits to heritage sites in the United Kingdom in 1990 were over 8.5 million and for the second time the Consumers Association has undertaken an assessment of the major heritage attractions. The shops in major museum are also doing extremely well. The Metropolitan Museum of Art's stores sold goods worth US$7 million in 1975 and the net profit in 1988 was US$9.2 million. The Smithsonian Institution in 1988 generated US $46 million in retail revenue, making it one of Washington's leading retailers, and its museum shops generated US$1000 per square foot compared to US $200 for most department stores. Furthermore, sponsorships of the arts is rapidly replacing sports' sponsorship"* (Shouten 1993, p383).

In an over-supplied heritage attractions market (Hanna 1995, Light 1995, Wertheim 1994, Smith 1994, Loomis 1993, Yale 1991, Hewison 1987), and against a background of increasingly demanding and discerning consumers bent on avid 'experience' seeking of the past, present and future (Firat 1997, Prentice 1996, Roieck 1993, van Raaij 1993, Poon 1989, Campbell 1987, Eco 1986, Postman 1985), it has now become a matter of urgency for museum professionals to understand the determinants of museum visiting intentions, customer satisfaction and the potentials for market development.

1.1.1 Visitor Studies and Understanding Museum Consumption and Non-Consumption

Although visitor surveys have a relatively long tradition in museums and heritage attractions, they have been severely criticised (Tian et al 1996, Davies 1994, Hudson 1993, Prentice 1993a) because of their past almost exclusive concentration on *basic demographics* (e.g. Light and Prentice 1994b, Prentice 1994); *behavioural characteristics*, such as visit frequency, group size, mode and distance of travel (e.g. Light and Prentice 1994a&b, McManus 1987, 1988); perceptions of *amenities*, including toilets, cafes and gift shops, and friendly staff (e.g. Davies 1994); *willingness- to- pay* as an indication of perceived benefits (e.g. Powe and Willis 1996); *pricing*, in terms of sensitivity to group and off peak discounts (e.g. Davies 1994); and *concrete reasons* for visiting, such as 'somewhere to take the children' (e.g. Prentice 1994,

Prentice 1993a, Griggs and Hays-Jackson 1983, Alt 1980). The overriding characteristic of visitor studies has been the general paucity of a *conceptual basis* in intangible consumption, and the inability of the summary information collected to aid museum managers in planning for product development and service quality.

Further, and despite most museums being charged with providing a service for the general public (McLean 1995), and an increasing emphasis being placed on cultural democracy and 'political correctness' (Shouten 1993), studies have generally concentrated almost exclusively on the visitor, and largely ignored those members of the public not present in the visitor profile. As such, reasons for not visiting museums have often been inferred from the results of visitor studies, rather than researched directly. Where research has focused on the non-visitor most have been based on focus-groups or speculative theories, and like visitor studies, they have been characterised by a lack of conceptual framework (see Davies and Prentice (1995) for a review). Exceptions include Prentice et al (1997) and the work of Hood (1983). Notably, Hood (1983), in the USA highlighted the difference between museum visitors and non-visitors based on leisure values, and the similarity of leisure values shared by museum visitors and staff. More recently, Prentice et al (1997) examined the differing motivations for visiting museum, theatres and industrial heritage, and compared these to motivations for an 'ideal' day out, as a partial explanation of the reasons of heritage non-visiting. Overall, however, research on heritage attraction non-visitors, like many visitor studies, has been based on generic (or generalised) motivations (Prentice et al 1997), or leisure agendas or goals (Hood 1983), and as such have been unable to identify the specific qualities, or behavioural outcomes, anticipated in heritage visits, or other resource or social structural-cultural constraints (Bourdieu 1984, Merriman 1991) that may deter visiting behaviour. In fact, several authors have noted that very little is known of the *'reality'* (McLean 1995) of what heritage attractions offer potential visitors (Harrison 1997, McLean 1995, Prentice 1993a), and museum visitor management has been criticised for its *'take it or leave it approach'* (Middleton 1990, p49), and *'for not digging deeply enough into the subtleties of consumer behaviour'* (Hudson 1993). By concentrating at best on summary motivations, and ignoring

other resource or social constraints that may be affecting visiting behaviour, visitor and non-visitor studies have largely remained focused at a level where the substitution base of cultural heritage consumption is broad, and not meaningful as a means of understanding the basis of competitive differentiation (Gnoth 1997), or target marketing (Robbins and Robbins 1980).

For half a decade, and in response to the relatively recent recognition of the intangible visitor experience as the core product offer of museums and other heritage attractions (McLean 1995, Goodale 1993), there has been a small, but growing, body of empirical interdisciplinary research focused on the *'experience'* of visiting heritage attractions. Studies have borrowed principally from consumer behaviour, social psychology, leisure science and to a lesser extent sociology, although there has been a concentration in heritage studies on the utility of *'experience-based'* management developed in North American leisure sciences (Manfredo and Larson 1993), and The Manning-Haas Hierarchy of Demand (Prentice et al 1993a, Beeho and Prentice 1995, Manfredo et al 1996) in particular.

Experience-based management (Manfredo et al 1996, Manfredo and Larson 1993, Beeho and Prentice 1995, Prentice 1993b), or *'experience engineering'* (Mannell and Iso-Ahola 1987), places emphasis on the experience attributes, or outcomes, as the ultimate goal of consumers (Manfredo et al 1983). Developed in the United States as a resource allocation or land management tool for outdoor recreation, the *Manning-Haas Hierarchy of Demand,* and *Recreation Opportunity Spectrum,* have remained popular conceptual bases informing experience-based management. Pertinent for the study of experiential consumption, and the rationale for its adoption in heritage studies, the Manning-Haas Hierarchy views experience outcomes (Level 3) as dependent on activity opportunity choices (Level 1) and the physical setting, or environment (Level 2) (See Prentice et al 1998a and Prentice and Beeho 1995 for a review). Furthermore, experience outcomes gained by consumers (Level 3) are believed to have the potential to lead to longer-term beneficial outcomes (Level 4), or improved social, psychological or physical conditions, which, in outdoor recreation management has lead to

'benefits-based management' (Burns et al 1994, Driver et al 1991), so as to account for the 'value' individuals derive from their recreation participation.

Insights borrowed from North American leisure sciences have lead, in heritage studies, to a strategic emphasis being placed on the structuring of the museum or other heritage environments to create, or encourage, predictably satisfying experiences (e.g. Prentice and Cunnell 1997, Moscardo 1996, Olds 1994, Mannell and Iso-Ahola 1987). In particular, ASEB grid analysis (Beeho and Prentice 1995) has been developed as an augmentation of traditional SWOT analysis useful for on-site visitor management, although there has been some difficulty in identifying differences between experiences and benefits and studies have failed to develop a systematic classification scheme to group these a priori. Furthermore, the importance of 'experience-based management', and a 'consumer-orientation', in heritage management has recently been emphasised by findings that tourists attribute both positive and negative experiences gained at destination attractions to external, and non-personal sources, (e.g. managerial initiative and environmental factors such as crowds), leaving themselves, as consumers, passive in determining their satisfaction (Jackson et al 1996).

However, concern has persisted within heritage management over the *'disneyfication'* of authentic artefacts (McLean 1995, Cannon-Brookes 1991, Capstick 1985, Lowenthal 1985) resulting from a concentration on the intangible experience consumed by visitors, and the move towards a *'market-driven approach'* (Seagram et al 1993). This dialectic continues to generate considerable debate and mirrors the early insights of Hirschman (1983b) on the limits of the marketing concept. In the extreme view, the business of museums has been seen as the creation of *'contrived/staged experiences'* (Pocock 1992, Cohen 1979, McCannell 1976), or *'pseudo-events'* (Boorstin 1964), and *'hyperreality'* (Pocock 1992), rather than a focus on the authentic objects. Critics believe that the authentic objects are capable of *'speaking for themselves'* (Dean 1994, Wander 1989), and stress that the authentic object should be the principal means of connecting individuals with a 'real', or 'unsantitised', appreciation of the past (Merriman 1991, Lowenthal 1987).

The outcome of these tensions in heritage management has been a narrow preoccupation with *factual learning* as the primary experience gained from visiting heritage attractions (Prentice 1997 and 1993a, Ryan and Dewar 1995, Johnston and Rennie 1995, Light 1995, Soren 1995, Moscardo 1992, Roggenbuck et al 1992, Edwards et al 1990, Koran and Koran 1986, Screven 1986, Hayward and Larkin 1983, Koran et al 1983). In contrast, other studies have found that a large majority of visitors are '*generalists*', akin to *window shoppers*, and who have no greater objective than to wander around, or shop, in *'active laziness'* (Graf 1994). These visitors, it has been suggested, do not study exhibitions in a systematic, goal-directed manner, associated with the acquisition of facts and figures (Urry 1989, Graf 1994, McLean 1991, Falk and Dierking 1982). In fact, within a leisure-time context, it has been argued that museum and other heritage visits consist primarily of '*play*' (Graf 1994), and *'informal learning'* based on social interaction (McManus 1991). Museum visitors have been observed to move around the exhibits guided by the attraction of single extrinsic elements and their own personal experience (Graf 1994). Interestingly, however, it has been noted that visitors expect heritage attractions to be scientific, historically and technologically profound, despite the recreational contexts of their visits (Graf 1994). This suggests that although visitors are not primarily concerned with factual information acquisition, they are sensitive to what they are viewing and find other symbolic, aesthetic, emotive and personal meaning in what they see (Umiker-Sebeok 1992, McCraken 1990, Annis 1986).

Other conceptual deficiencies in the 'experiential' view adopted in the study of heritage consumption, and pertinent for an understanding of why individuals do not visit heritage attractions, has been a general failure to measure negative or unpleasant experiences felt or anticipated by respondents. It seems likely that negative and unpleasant experiences form part of the museum images (or cognitive beliefs) held by individuals, and will lead some individuals to choose not to visit museums, while for visitors, negative experiences are likely to dilute their satisfaction with the visit. This omission is, at least partly, a result of the tradition of on-site surveys in heritage studies where expressions of dissatisfaction may not be forthcoming due to the strategies individuals adopt to reduce cognitive dissonance. The

pertinence of accounting for unpleasant and negative experiences in developing our understanding of the 'nature' of heritage consumption can be found in the differential effects negative experiences have on the consumer, compared to the effects of positive experiences. Physical and psychological discomfort, or the negative experiences arising from, for example, 'feeling unsure of how to work the system', if present in heritage settings will impact on the individual adversely causing stress, fatigue and non-visiting (Hood 1993, Olds 1994). In contrast, the absence of positive experiences, such as amazement and awe, if expected and not found, are likely to lead to disappointment, but will not impact negatively on the individual. By not fully accounting for the negative and unpleasant experiences individuals perceive at part of heritage visits, the growing number of studies focused on the 'experiences' of consumers have ignored a portion of the museum-experience *'opportunity spectrum'* (Loomis 1993) that is likely to have motivational implications for heritage attractions, and affect visitors' levels of trip satisfaction.

However, despite a continued neglect of the negative and unpleasant experiences perceived at museum attractions, calls for a re-orientation in museum visitor management that was sensitive to the informal-learning and non-instrumental needs and concerns of museum visitors (McManus 1991), and studies into the *'aesthetics of perception'* (Zavala 1993), have been relatively successful. There has been a notable rise in the number of studies aimed at identifying the experiential, hedonic and emotional aspects of the museum and heritage visits. Heritage experiences have been found, for example, to provide a sense of atmosphere, or *'some kind of feel of how it would have been'*, as well as highly personalised learning, social benefits and aesthetic experiences (Maesberg and Silverman 1996). Other lists of experiences reported in museum and heritage settings include restorative, reflective, fascination, extended environment (e.g. *feeling like you're there and being taken back in time)* and fascination[1] feelings (Kaplan et al 1993); sadness, nostalgia and sympathy, amazement, terror, astonishment and endearment (Prentice et al 1998, Beeho and Prentice 1997, Prentice

[1] Kaplan et al (1993) referred to fascination as including experiential elements such as excitement, adventure, interest, awe and wonder and emotional involvement.

et al 1994, Prentice et al 1993); cognitive mindfulness[2] (Moscardo 1996); and 'place appreciation' (Stewart et al 1998). Beyond immediate on-site experience, other studies have focused on the rewards perceived by individuals which extend beyond learning to include feelings of enriching your life and relaxation (Jansen-Verbeke and van Rekom 1996), as well as socialisation/bonding, social recognition and self-esteem[3] (Tian et al 1996). However, a significant proportion of these studies are based on North American museums, and museum-visiting populations.

Pertinently, these studies have begun to show heritage visitors as more than *'visual consumers'* (Costa and Bambossy 1997), tourist *'cosmopolitans'* (Urry 1995), or *'itinerant gazers'* (Urry 1990), and in doing so have acknowledged the effects of new hedonism on the multi-sensual expectations of museum audiences (Roederer 1990). Interestingly, recent re-conceptualisations have shown the museum visitor as an interacting and creative 'chorister' (Wearing and Wearing 1996), who enjoys an affective form of mindfulness (McIntosh 1997). Expressions of heritage consumption common to this re-conceptualisation have included experiences such as *"sharing her thought with her"*, *"dreaming the dreams people in those Fifteen Streets used to dream"*, and *"I couldn't see the actual houses, yet the imagination could still work and I could see the inhabitations in my minds eye"* (Pocock 1992, p 241). These studies have placed museum consumption within the realms of postmodern consumption more generally[4] (Firat 1997, Prentice 1996, Rojeck 1993, van Raaij 1993, Poon 1989, Campbell 1987, Eco 1986, Postman 1985).

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[2] Moscardo describes mindfulness as being sensitive to the content of museum exhibitions and being able to draw novel conclusions. The concept was developed from work in psychology by Langer and Newman (1984) (see Langer 1989 for a review).

[3] The author acknowledges that in consumer behaviour, Kelly (1987 a&b) and Kelly (1993), and sociology, Bourdieu (1984), have identified the social recognition and self-esteem experiences that flow from museum consumption. However, these authors were not recognised in the study of heritage and tourism experiences until recently (Merriman 1991, Davies and Prentice 1995).

[4] Postmodern consumers have, for example, been described as seeking to: *"experience a diversity of themes, past and future, not get fixed in any single one...the touristic consumer samples, may sights, sound themes and tastes of yesterday and tomorrow – which are all here and now, in the present... seeks those experiences that can make 'present' all of the most exciting elements of time/space setting without any difficulties or hardships"* (Firat 1997, p 189-190).

Together, these recent studies in museum and heritage consumption which have been focused on the symbolic, aesthetic, emotional, and informal learning experiences of visitors, have highlighted the multi-sensory, and multi-dimensional, 'nature' of heritage experiences opportunities available to museum visitors. Heritage attractions have, for example, been described '*as much odour seeking as sight–seeing*' (Urry 1994) or, by their critics as '*an assault on the senses*' (Cannon-Brooks 1991). Further, these studies have suggested that in order to be successful in terms providing superior visitor satisfaction, and gains in market development, or cultural democracy, museums must be capable of facilitating '*insight*' (Duhaime et al 1995, O'Neill and Dufrense-Tasse 1997), managing '*implosion*'[5](Prentice 1996), providing '*Eureka-pleasure*' (Wander 1989), and allowing visitors to become *'deluded insight-outsiders'* (Prentice 1996) based on *'literal representation'* (Duhaime et al 1994). Indeed the popularity of heritage attractions advertising an *'immersion experience'* (Loomis 1993), including, for example, Jorvik (York), the Fishing Heritage Centre (Grimsby), Tower Hill Pageant (London) and Wigan Pier (Wigan), offer partial support for these conclusions.

However, although recent studies have developed lists of the multi-sensory experiences available at heritage sites, the 'nature', or conceptualisation, of the museum or heritage experience has remained underdeveloped. This is partly due to the item-by-item analysis conducted in these studies, which has resulted in a lack of understanding of the relationships among the experiences measured, and a failure to identify latent dimensions, as higher-order abstracted concepts, capable of summarising the heritage experience. Exceptions include Jansen-Verbeke and van Rekom (1996) and Tian et al (1996). Based on a sample of American residents Tian et al (1996) identified four experiential domains that together summarised the 'museum experience'. These included socialisation/bonding, relaxation, social recognition, self-esteem and educational attainment. However, her study was based on experience scales derived from leisure science and, beyond neglecting the potential negative

[5] 'Implosion' refers to the bringing together of competing texts which are anticipated, selected (either purposefully or randomly), viewed (or ignored), assimilated (or dissimilated), are remembered (or forgotten) (Prentice 1996). The management of implosion is concerned with the provision of context in order to facilitate imaginative contexts.

experiences available in museum settings, her study may have missed experiential dimensions important to museum contexts and not found in leisure recreation. In contrast, Jansen-Verbeke and van Rekom (1996) derived three salient groupings of museum experiences from a factor analysis of the visiting consequences respondents reported during laddering interviews. The three factors, namely 'learning', 'enriching your life' and 'relaxation', provide support to the prominence of informal learning opportunities perceived by visitors, and which have been emphasised elsewhere (Prentice et al 1998, Light 1995, McLean 1994, Falk and Dierking 1992); as well as the experience-benefit link found in the Manning-Haas Hierarchy. The surprising lack of emotional or imaginative consequences in this study can, however, be attributed to the laddering technique employed, which encourages rationalisations.

Other theoretical categorisations of museum experiences which suggest potential structural characteristics to summarise the 'nature' of heritage experiences include Falk and Dierking's (1982) *Interactive Experience Model,* which views the museum experience as the combination of *personal, social and physical* contexts; and Zavala (1993), who identified three paradigmatic dimensions common to museums as the *ritual,* the *educational,* and the *ludic.* Although, providing insight into the likely mixture of hedonic (ludic), and instrumental (learning), as well as placing a greater focus on the ritual nature of consumption, the models of Zavala (1993) and Falk and Dierking (1992) have not generated empirical investigation into the nature and relationship between these dimensions of museum experience.

1.1.2 Contributions From Other Disciplines To Understand the Museum and Heritage Experience

Studies from diverse literatures beyond heritage research have been relatively more substantial in their concern with consumption experiences and offer potential insight into the actual and expected experiential outcomes of museum and heritage visiting. An

examination of studies from these literatures, and in particular studies in leisure, tourism and consumer behaviour, offer potential classifications of experience useful to understand the possible 'nature' of the museum experience, and to forward the conceptual development of a research agenda focused on consumer and non-consumer current, and previous, experiences of heritage consumption.

For example, the experience of leisure has been defined to include dimensions of intrinsic pleasure, self-esteem, control, mood, and freedom (Hull et al 1996, Unger and Kernan 1983); while tourism service experiences have been found to include hedonics, peace of mind (safety), involvement (interactivity) and recognition (Otto and Ritchie 1996). Other studies, as noted earlier, have made the distinction between conscious immediate experiences and 're-experiences' facilitated by memory recall (Mannell and Iso-Ahola 1987), or site-specific recreational experiences and the 'benefits' or improved conditions that flow from these (e.g. Burns et al 1994, Driver et al 1991). Together these distinctions suggest that museum experiences may not be irrevocably perishable (McLean 1993) and highlight that, in addition to the current research focus which is centred on the experiences consumers report at heritage sites, it is important to understand an individual's anticipation and recall of heritage experiences.

Definitions of 'experience' across a diverse range of disciplines agree that experience is a subjective or symbolic state, which must be consumer-defined, rather than focusing on the more functional characteristics of service delivery, which include, for example, the provision of clean toilet facilities. Experience has been defined as *'something which is felt or learnt by personal contact'* (Oxford English Dictionary), as a *'subjective mental state'* (Otto and Ritchie 1996), or as *a 'state of mind (which) is uniquely individual'* (Mannell and Iso-Ahola 1987). However, the most comprehensive conceptual contribution to our understanding of experience, that is relevant to the present study, can be found the *'experiential consumption'* research agenda established by Holbrook and Hirschman (1982).

The *'experiential'* (Holbrook and Hirschman 1982), or *'hedonic'* (Hirschman and Holbrook 1982), paradigm[6] describes consumption experience as a *"subjective state of consciousness with a variety of symbolic meanings, hedonic response and aesthetic criteria"* (Holbrook and Hirschman 1982, p 132), and more narrowly as *"those multi-sensory fantasy feelings and emotive aspects of one's experience with products"* (Hirschman and Holbrook 1982, p 92). From these definitions the phenomenology of consumption experience has been described for *music* (Lacher 1994, Lacher 1989), *movies* (Cooper-Martin 1992 & 1991, Hirschman 1983), the *creation* and *appreciation of art* (Duhaime 1995, Holbrook and Zirlin 1985), *computer games* (Holbrook et al 1984), *public holidays* (Levinson et al 1992, Wallendorf and Arnould 1991, Hirschman and LaBarbera 1989, Sherry and McGrath 1989, Belk 1987), and increasingly for serious leisure pursuits including *revendeesvouz* (Belk and Costa forthcoming) *baseball* (Holt 1995), *motorbiking* (Shouten and McAlexander 1995), *mountain climbing* (Smith 1995), *sky diving* (Celsi et al 1993, Celsi 1992), *whitewater rafting* (Arnould and Price1992) and *gambling* (Cotte 1997). This collection of studies attests to the heterogeneity of experiential types of consumption. A classification of experiential consumption would include from past studies: the fantastic *consumption enclave* of socially constructed unreality (Belk and Costa forthcoming); *paradisal consumption* (Costa 1998), *profound aesthetic experience* (Holbrook and Zirlin 1985); *extraordinary experience* (Arnold and Price 1993); *communitas and phatic communion* (Celsi et al 1993); *consumption peaks* (Smith 1995); *flow* (Csikzentmihalyi and Csikzentmihalyi 1988); *transcendent experience* (Celsi 1992, Hirschman 1992); *play* (Grayson and Deighton 1995, Holt 1995, Holbrook et al 1984), and the *sacred* (Duhaime et al 1995).

Over time, the experiential consumption research agenda has evolved from a concentration on the emotive and symbolic reactions of consumers to include the total set of physical activities, cognitive thoughts, emotions and sensations consumers perceive when choosing, using,

[6] Although the terms 'hedonic' and 'experiential' consumption are often used interchangeably and a clear distinction has never been formally given, the author suggests that hedonic consumption is subsumed within experiential consumption, and as such can be seen as one type of experiential consumption which is focused in particular on the emotional, fun and intrinsically pleasing consumption practices.

consuming and disposing of goods and services (Lofman 1991). The *Thought-Emotion-Activity-Value* (T-E-V-A) model (Hirschman and Holbrook 1986) has been proposed in order to integrate the diverse views of the consumer as an '*information-processor*' (Howard and Sheth 1969) and '*hedonic* consumer' prevalent in consumer behaviour. As an information processor consumption experiences have been characterised to consist of logical, cause and effect reasoning, the decomposition of phenomenal objects into salient attributes, to rely primarily on the verbal or semantic, and have been seen as instrumental, and as a means to some end. In contrast, hedonic consumption experiences have been seen as an end in themselves, and imbued with emotional overtones, subjective thoughts and feelings, intrinsically valued and time-contingent. Hirschman's and Holbrook's integration of these two diverse views of the consumer provides a comprehensive definition of consumption experience as:

> *"an emergent property that results from a complex system of mutually overlapping intercorrelation in constant reciprocal interaction with personal* (motivation), *environmental* (information) *and situational* (personal-situation interaction) *inputs"* (Hirschman and Holbrook 1986, p 219).

The consumption experience itself emerges from the three mutually reinforcing concepts of personal, environmental and situational, as *thought* (mental events), *emotion* (responding, interpreting, expressing and feeling), *activity* (action and reaction) and *value* (interactive relativistic preference experience), and has been seen to include both '*actions*', resulting from purposeful behaviour and the motivations of consumers, as well as '*reactions*', which include the emotional and symbolic effects on the consumer resulting from the consumption setting (Holbrook et al 1990). These definitions reflect Falk and Dierking's (1992) model of museum experience (Falk and Dierking 1992), where the three dimensions of personal, physical (environment) and situational (social) jockey to produce the museum experience consumed, as well as the importance of managerial and natural settings, or Level 2 in the Manning-Haas Hierarchy of Demand, for mediating experience opportunities. Furthermore, the T-E-V-A model and research focused on consumption experiences offer a potentially

useful and rich conceptual basis to develop our understanding of heritage consumption. More pertinently, however, Hirschman and Holbrook's (1986) definition of consumption experience emphasises the importance of the physical situation, or designed environment, as one factor affecting an individual's consumption experience.

1.1.3 Exhibitions, Interpretative Design and Physical Design Space at Heritage Attractions

Evidence shows that museum visitors are often conscious of the museum interpretative/managerial environment in which they find themselves. Several researchers have found visitors making unprompted and prompted comment on the overall design/presentation and specific media used in museum exhibitions, such as videos, voices and computer interactives (Prentice 1997, Maesberg and Silverman 1996, McManus 1993, Prentice 1993a, Alt and Shaw 1984, Griggs 1984, Alt 1983). This is perhaps not unexpected as museum visitors are often experienced (Davies 1994, McManus 1991), and are able to make comparisons readily. However, recognition of visitors critical awareness supports the emphasis recent exhibition design has placed on the facilitation of visitor experiences (Stout 1995, Thompson et al 1993, Goodhall 1993, Alt 1983, Laetsch 1979), and the use of exhibition design in the rapidly competitive heritage market place as a form of product development (Light 1995, Uzzell 1989). Indeed, exhibition interpretation, or the orientation of exhibition designers in their use of media mixes and the role they give to the heritage artefact, has been described as the *'value-added product of the tourist industry'* (Uzzell 1989), capable of enhancing the quality of a heritage site and contributing to visitor satisfaction and enjoyment (Light 1995). Given, the increasing levels of expenditure dedicated to designing museum exhibitions (Light 1995, Bendor and Edmonds 1992, Cadw 1992, Addyman and Gaynor 1984), and the sheer volume of interpretation in Britain resulting from the 'over-supply' of heritage attractions (Light 1995), an evaluation of the effectiveness of interpretative design in terms of its intended role, and, in particular, an understanding of how the interpretation affects individuals' experiences of museum settings, has become important to

heritage managers (Light 1995). More broadly, an assessment of the effects of interpretative design on the museum, or heritage, experience would contribute to our understanding of the impact of designed physical space on consumption experiences (Bitner 1992), and assess whether suggestions in leisure studies that *'people may be place specialists with patterns of their leisure focused on the experience of place'* (William et al 1992, p43), extends to heritage settings. Further, an examination of the extent to which anticipated museum experiences vary by the interpretative environment perceived by individuals will help to establish whether trends in retailing away from a concentration on the *product* offered to a holistic approach where the *point of sale*, or *retail environment*, has become the *object*, or *product*, by Hetzel (1995), also extends to heritage attractions. In turn, this would allow an assessment of where museum interpretation could become a valid branding basis useful for market development and promotion.

As noted above, heritage attractions vary in the media mixes they use in exhibition interpretation and the role they give to the historical artefact in facilitating the visitor experience. Museological orientation, or the science of museums, in terms of preservation, research and communication (Scharer 1996), stands as one of the principal reasons for the observed differences in interpretative design, and these differences have implications for the consumer. In Old Museology, exhibitions have been object-orientated, and primarily concerned with the research, preservation and comprehensiveness of the overall collection of artefacts. Common images of such scholarly-orientated museums (Miles 1986) include rows of coins or ceramic pieces in ordered glass boxes with technical information. In contrast, in *'The New Museology'* (Vergo 1989), or concept-orientated museum, historical artefacts are not given a central role but are used as 'props' in telling a story to demonstrate *'what life was like', 'the use and relevance of artefacts in peoples' lives'*, and to increase *'our understanding of peoples' lives'*. Overall, 'The New Museology' aims to facilitate feelings of wonder, hope, and reflection, as one way of democratising heritage, and have been termed *'houses of life'* (Fitzgerald 1994, Talley 1992, Hooper-Greehill 1992, Vergo 1989).

Interpretation is the identification and explanation, that is, the communication, of what is seen or imagined in the exhibition (Prentice 1997). The museological orientation adopted by heritage attractions determines the *communication style,* or *interpretation* of artefacts, and the *variety interpretative media* used to build exhibitions. Originally, interpretation was seen primarily an educational activity, employing a variety of presentational media such as display boards, guided tours, exhibitions and diorama to explain the meaning and significance of artefacts or heritage sites (Prentice and Light 1995). In contrast, 'The New Museology' is concerned with a broader range of emotive and quasi-education experiences, and capitalises on recent developments in technology, employing dark rides (Donnachie and Hewitt 1993, Addyman and Gaynor 1984), interactive-displays and other technology-induced experiences (Gilling 1995, Quinn 1994, Bearman 1993, Nash 1992, Worts 1990), and live interpretation (Shafernich 1993, Wilkinson 1993, Malcom-Davies 1990, Robertshaw 1990), in combination with the traditional methods. As such, interpretation can be seen as the way history is packaged and presented to consumers (Ashworth 1990) and it forms one part of the museum service offer which is tangible as opposed to abstract. More pertinently, interpretation, as has been suggested in the application of the Manning-Haas Hierarchy of Demand to museum attractions, represents a 'setting' intermediary:

"Heritage tourism ..... provides an infinite time and space in which the past can be experienced ***through the prism of endless possibilities of interpretation.*** *Postmodern tourists use the power of their intellect and imagination to receive communicating messages, constructing their own sense of historic place to create their individual journeys of self-discovery"* (Nuryanti 1996)

However, despite evidence demonstrating that museum interpretative provision has a vital role to play in *'teaching to see'* (Duhamie et al 1995), can facilitate *'mindfulness'* (Moscardo 1996, 1991a, 1991b), and calls *'consumer perception auditing'* (Johns and Clark 1993, Crawford Seagram et al 1993), there has been only a limited attempt to understand and incorporate visitors' perceptions and reactions to different interpretative styles into museum design and product development (Zavala 1993, Merriman 1991, Miles 1986).

Early museum evaluation studies observed the impact of museum interpretation on visitors' experiences in terms of the length of time spent at exhibits, which presentations individuals attended, and the amount of text read by visitors (see McManus 1989 and Beer 1987 for a limited discussion), providing little understanding as to the effectiveness of these exhibits in terms of their psychological impact. More recent evaluations of interpretative styles have also been limited because of their concentration on factual learning experiences, and their measurement of these learning experiences by 'testing visitors' knowledge' using pen and paper survey techniques (for example, Prentice 1995 & 1993a, Ryan and Dewar 1995, Light 1995b, Dewar 1992, Scriven 1974), or by focussing on visitors' evaluations of individual exhibits (Prentice and Cunnell 1998, Prentice et al 1998b, Light 1995).

Substantial criticism of the narrow focus of much interpretative evaluation has been noted (McManus 1991). However, and more pertinently, this approach to interpretative evaluation is flawed. A concentration on individual exhibits fails to address the holistic images associated with the intangible, experiential and emotionally charged perceptions that have been reported more recently in visitor studies (see section 1.1.2 above). Additionally, museum visitors have been found to arrive at museums with their own 'personal contexts' or 'agendas' (Prentice 1996, McDonald 1992, Falk and Dierking 1992), to attend to the informational content of exhibits differently (Prentice and Cunnell 1998), and use different reception strategies to interpret museum exhibitions[7] (Umiker-Sebeok 1992). For an understanding of experiences a global assessment of interpretative style, where account is taken of a collection of exhibits and the museum space more generally, rather than a concentration on one exhibit, may be more useful and consistent with previous findings in other studies.

[7] Umiker-Sebeok (1992) using a socio-semiotic approach identified four strategies used by visitors in interpreting exhibitions. The *pragmatic reception* strategy consisted of a search for information and was seen as instrumental in that regard. In contrast, a *critical reception strategy described visitors who were looking for ideas but not necessarily ideas to be used for* utilitarian purpose (i.e. learning). The *utopian reception* strategy identified visitors who were seeking imaginative self-exploration (preferably with others). And the *diversionary reception* strategy, identified visitors that did not seek any utilitarian values from the gallery but wanted physical and emotional stimulation, much like that of an amusement park.

There have been a limited number of studies which have examined the ability of museum interpretation to effect a broader range of experiential outcomes. Although focused on individual exhibits, and based on American museum visitors, these studies have gone someway to understand how consumers describe an *'ideal exhibit'* (Serrell 1993, Miles and Trout 1991, Alt and Shaw 1984). For example, the *'positive museum experience'* (Serrell 1993) was reported to include feelings of *'being absorbed in the experience'*, *'wonder'*, *'excitement'*, *'easy to follow'*, *'challenge'*, *'no anxiety about content or setting'*, *'validation of what is already known'*, and was seen by the authors to reflect broader notions of *'flow'* or *'optimal experience'* (Csikszentmihalyi 1975). Bitgood (1990) in several larger quantitative studies, found that visitors' reactions to exhibits could be described by four factors, namely immersion, familiarity, affective emotions and contextual (exhibit) features. However, Bitgood's studies are cited almost exclusively for his identification of the *'immersion experience'*, which was found to include descriptions of *'feelings of time and place'*, *'beautiful'*, *'exciting'* and *'interesting'*, and to be strongly associated with the perceived naturalness and authenticity of the exhibitions. Interestingly, Moscardo (1996, 1991a, 1991b) examined the effectiveness of interpretation using on the *mindfulness/mindlessness* model (Langer and Newman 1979) and demonstrated that mindfulness was positively related to visitor's satisfaction with the visit, but more pertinently, that mindfulness was associated with the complexity of exhibits and the way in which exhibits were presented. In particular, Moscardo (1991a) reported that exhibits that were *'telling a story'* achieved significantly higher levels of mindfulness than exhibits containing *'isolated facts'* or *'component parts'*.

1.2 Conceptual Frameworks Relevant to Understanding Heritage Consumption and Non-Consumption: The Paradigm of Expectancy-Value Theory

To date, museum, tourism and leisure research has relied on several conceptual frameworks, including attribution theory (Jackson et al 1996), Maslow's Hierarchy of Needs (e.g. Pearce and Caltabiano 1983), mindfulness/mindlessness models (Moscardo 1996, 1992, 1991a&b); and use-sign value (Fitchett and Saren 1997). However, by far the most pervasive conceptual

framework applied in museum and heritage consumption studies has been expectancy-value theory (Fishbein 1963, Lawler 1973). In museum and heritage studies, expectancy-value theory has been used both directly (Tian et al 1996, Milan and Worms 1992, Cable et al 1987, Alt 1983, Andreasen and Belk 1980), and indirectly, through the Manning-Haas Hierarchy of Demand (e.g. Prentice et al 1998, Prentice 1993b). Elsewhere, expectancy-value theory has been described as *'paradigmatic'* (Bagozzi 1984) in its broader application of the Theory of Reasoned Action (Fishbein and Ajzen 1975) to explain behaviour in a diverse range of marketing contexts. This conclusion can seemingly be extended to museum, tourism and leisure research.

1.2.1 Expectancy-Value Theory and The Manning-Haas Hierarchy

The Manning-Haas Hierarchy was original conceived as an extension of expectancy-value theory for out-door recreation resource management (Manning 1985, Lawler 1973). As such, central to both The Manning-Haas Hierarchy and expectancy-value theory (Fishbein 1963) is the belief that individuals are motivated to consume, or undertake an activity, in order to realise a bundle of valued consequences, or experiential attributes (Manning 1985, Mazis et al 1975, Fishbein 1963). Both theories were adopted in the study of museum and leisure consumption because of their ability to identify the determinants of motivated behaviour. As such, by understanding the experiential consequences of museum or heritage visiting, expectancy-value theory, and experience-based management (or the Manning-Haas Hierarchy), offer the potential for managers to design programmes that maximise the rewards and minimise the costs of visiting, thereby achieving superior customer satisfaction in meeting managerial objectives, as well as providing an understanding of the potential conflicts between different visiting and non-visiting groups.

However, the Manning-Haas Hierarchy varies from the traditional conceptualisation of expectancy-value theory, as applied in consumer behaviour or social psychology (Fishbein 1963, Fishbein and Ajzen 1975). In particular, the Manning-Haas Hierarchy is concentrated

on disaggregating experiential outcomes in terms of their level of abstraction[8] and in this way it is useful for identifying physical setting attributes on which to concentrate management initiatives. In contrast, no distinction in terms of levels of abstraction, or the potential multi-dimensionality of experiential outcomes, have traditionally been acknowledged in expectancy-value theory. Furthermore, while in expectancy-value theory outcome-attributes are weighted by the value an individual places on the outcome, value has not generally been combined with perceived experiential outcomes in applications of the Manning-Haas Hierarchy, and experience-based management. A further difference in emphasis between the Manning-Haas Hierarchy and expectancy-value theory relates to the focus each theory gives to those individuals who are latent in the demand profile. The Manning-Haas Hierarchy has concentrated on positive demand almost exclusively, while expectancy-value theory has often been usefully applied to explain how consumers and non-consumers differ (e.g Ajzen et al 1995, Ajzen and Driver 1991, Fishbein and Sasson 1990, Kristiansen 1987). As such, and due to both a focus on non-volitional behaviour, as well in an effort to generally increase predictive validity, expectancy-value theory has been extended to take account of subjective norms, in *The Theory of Reasoned Action* (Fishbein and Ajzen 1975), and perceived behavioural control, in the *Theory of Planned Behaviour* (Ajzen 1991). In contrast, the Manning-Haas Hierarchy, and by definition, experience-based management, have remained focused on behavioural outcomes, thereby potentially reducing their utility to explain visiting and non-visiting behaviour, relative to the theories of Reasoned Action and Planned Behaviour.

By not accounting for the value an individual attaches to the experiential outcomes they perceive[9], past museum and heritage studies have presumed visitors are equal in terms of the

[8] As noted in section 1.1.1, the Manning-Haas Hierarchy consists of four levels of abstraction. Individuals are seen to demand activities (level 1) in different types of environmental settings (level 2) in order to realise the experiential outcomes (level 3) offered by these settings. In turn the experiential outcomes (level 3) may lead to longer-term psychological or physical benefits (level 4).

[9] There are three notable exceptions including Tian et al (1996), Milan and Worms (1992) and Cable et al (1987). These authors fully operationalised expectancy-value theory by including both subjective probability and outcome evaluations. However, these studies were based on North American museums and only included museum visitors.

value they attribute to heritage experiences, and as such have neglected potentially important information useful for visitor management and product development. More pertinently, however, past museum and heritage studies have used expectancy-value theory, and the Manning-Haas Hierarchy framework in particular, as descriptive tools to profile museum visitors, but have failed to assess the predictive or nomological[10] validity of these demand models in the heritage context (e.g. Prentice et al 1998a, McIntosh 1997, Prentice and Light 1995). As such, past museum and heritage visitor studies have developed visitor profiles based on an experiential-management framework without fully substantiating the utility of this framework for strategic market or product development. Furthermore, museum and heritage studies have failed to assess the potential to improve our understanding of the reasons for visiting, and not visiting, heritage attractions offered by extensions of expectancy-value theory. Clearly, studies of heritage consumption focused on the predictive and nomological validity of expectancy-value theory are required to support the continued application of The Manning-Haas Hierarchy and experience-based management in heritage attraction management. Furthermore, an assessment of the ability of the Theory of Reasoned Action, and the Theory of Planned Behaviour, to improve our understanding of heritage visiting, and non-visiting, would highlight whether extensions to The Manning-Haas Hierarchy, and experience-based management, are required to improve the ability of these models to aid attraction managers in strategic product and market development.

1.2.2 Conceptual and Methodological Contributions and Concerns in Expectancy-Value Theory, The Theory of Reasoned Action (TRA), and The Theory of Planned Behaviour (TOPB).

To determine the utility of the Theories of Reasoned Action and Planned Behaviour identify the determinants of heritage visiting and non-visiting, both a review of these theories and a discussion of their strengths and weaknesses is necessary.

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[10] Nomological validity is an assessment of the degree to which predictions or hypotheses regarding the relationships between constructs in a formal theoretical network can be confirmed (Bagozzi 1981). See footnote 1, Chapter 7 for a more detailed note.

Until recently, the Theory of Reasoned Action (TRA) was unrivalled as an expectancy-value theory in attitude-behaviour research (Norman and Smith 1995, Olson and Zanna 1993). TRA was developed in response to the serious criticisms of early attitude research focused on the lack of consistent relationship between attitudes and behaviour (Wicker 1969). According to TRA, the primary determinant of behaviour is not the person's attitude towards the behaviour, but his or her intention to perform the behaviour[11] (see Figure 1.1).

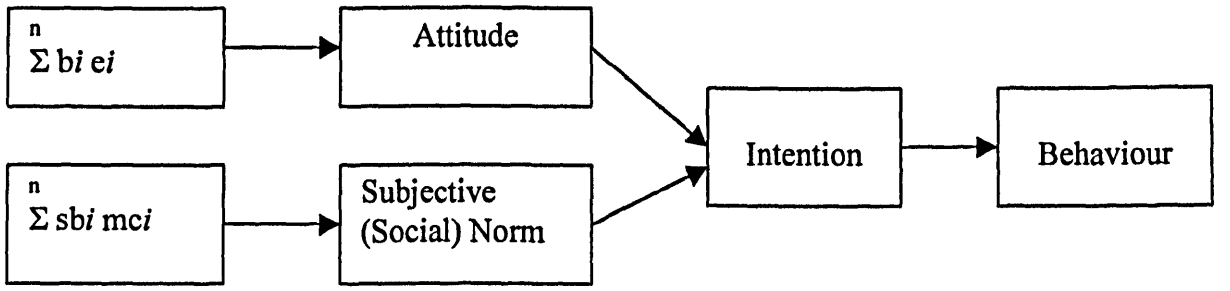
Behavioural intention (*BI*), in turn, is determined by two factors. One determinant of behavioural intention *(BI)* is a person's *attitude* towards the behaviour (*Aact*), or the extent to which an individual has a favourable, or unfavourable, overall (affective) evaluation of the behaviour. The second determinant of behavioural intention is the subjective norm (*SN*), or perceived social pressure an individual perceives to perform (or not to perform) the behaviour.

In TRA the specific social and behavioural consequences anticipated to flow from performing, or not performing, the behaviour are seen as the antecedents of *Aact* and *SN*. For understanding attitudes (Aact), the beliefs associated with the behavioural outcomes (b*i*) individuals believe will flow from undertaking the activity are combined with an individual's evaluation of these outcomes (e*i*). For subjective (social) norms, on the other hand, beliefs that significant others expect one to perform, or not to perform, the behaviour (sb*i*) are combined with motivation to comply with the concern of these individuals (mc*i*). As such, Aact and SN are considered *direct* or *global* determinants of intention, while the beliefs antecedents (Σ b*i* e*i* and Σ sb*i* mc*i*) of Aact and SN are considered *indirect* or *belief-based* determinants of intention.

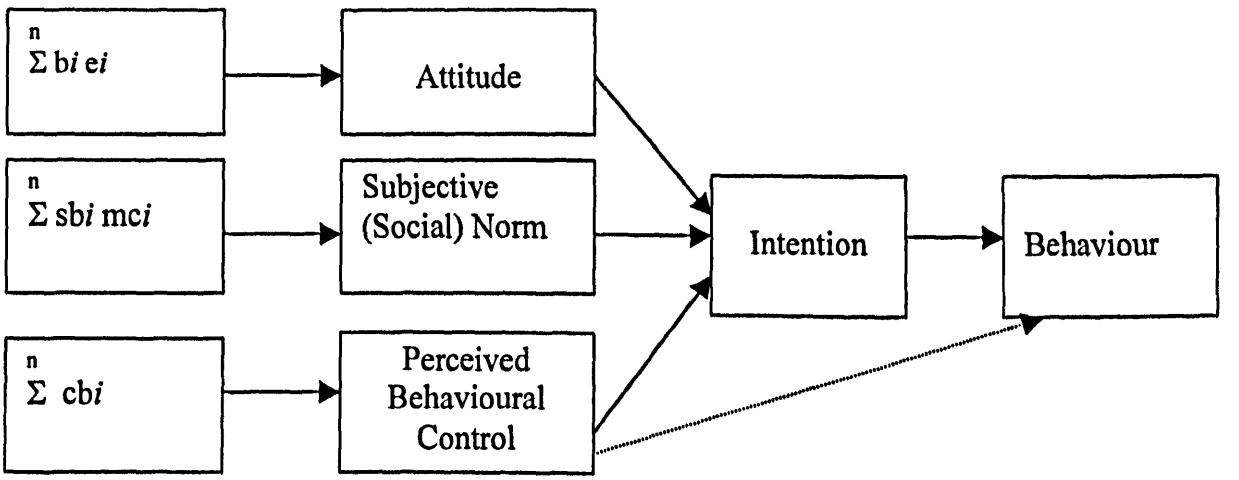
[11] Despite the widespread applications of both the TRA and TOPB models, the ability of these models to predict behaviour from behavioural intentions has been mixed (Kurland 1995, Bagozzi and Warshaw 1990, Boyd and Wandersman 1991). However, on balance, the majority of studies using both TRA and TOPB have shown that behavioural intention is a good predictor of actual behaviour (see reviews by East 1997 and Sheppard et al 1988). For these reasons it has been suggested that marketing research only needs to measure purchase intentions in order to predict actual purchase behaviour (East 1997).. However, it was also noted that measuring intention has been found to alter reported behaviour through 'mere measurement' or 'self prophesy effects' thereby questioning the validity of measuring both behavioural intentions and actual behaviour in TRA and TOPB studies (Spragenberg 1997, Spragenberg 1997, Mortwitz et al 1993, Beale and Manstead 1991).

Figure 1.1: **The Theories of Reasoned Action and Planned Behaviour**

Theory of Reasoned Action



The Theory of Planned Behaviour



Where: b*i* = behavioural beliefs (Likelihood) e*i* = evaluation (desirability)
sb*i* = social referent belief (approval) mc*i* = motivation to comply (concern)
cb*i* = control beliefs (do not need resources)

Although TRA has been successfully applied in a range of behaviours (see Sheppard et al (1988) for an extensive review), one of TRA's major limitations concerns its suitability for volitional behaviours only (Ajzen 1991, Ajzen and Madden 1988). Ajzen (1988), among others, has recognised that not all social behaviours are completely under an individuals volitional control. Often behaviours, including for example jogging, boating, and mountain climbing (Ajzen and Driver 1991), have been found subject to interference from internal or external forces, such as time or planning resources. For these reasons, Ajzen and Madden (1986) extended TRA to account for behaviours not totally under volitional control and introduced *perceived behavioural control (PBC)*, or the perceived ease or difficulty of performing the behaviour, as an antecedent to behavioural intentions in addition to *Aact* and *SN*. The augmented model is known as the *Theory of Planned Behaviour* (TOPB), and is shown schematically in Figure 1.1. In the same way as intention in TRA was seen to consist of direct (global) and indirect (belief-based) measures of Aact and SN, in the Theory of Planned Behaviour (TOPB), perceived behavioural control (PBC) is determined by specific control beliefs (cb*i*) associated with the obstacles or resources an individual requires in order to realise their intention.

Perceived behavioural control (PBC) was hypothesised to have one of two effects in understanding behaviour in the Theory of Planned Behaviour. Firstly, perceived behavioural control (PBC) was seen to have motivational implications for behaviour, as represented by the path from perceived behavioural control to intentions. This suggested that if an individual perceived that they did not have the resources to undertake the activity, then they would not intend to do so. Secondly, perceived behavioural control was seen to have a direct impact on actual behaviour, as represented by the dashed line in Figure 1.1. This direct path identifies the non-volitional determinants of action and is conceived as a measure of actual control (Ajzen and Madden 1986).

Figure 1.1 shows that in TOPB indirect measures of Aact, SN and PBC were conceptualised as uni-dimensional and unweighted, summed indices of salient behavioural, normative and

control beliefs (Σ b*i* e*i* , Σ sb*i* mc*i*, and Σ cb*i*, respectively). Further, these indirect measures, or belief-products, were derived using a multiplication (interactive) combination rule, and assume that individual behavioural, control and normative belief-products are salient for the individual. Since the early 1980's there has been growing concern regarding each one of these assumptions. In particular, Bagozzi (1982, 1983, 1985, 1988), has been prolific in his discussion of conceptual and methodological deficiencies associated with the structural (validity) assumptions of the Fishbein and Ajzen 'simple-interactive-summated' model, and his conceptual paper (Bagozzi 1985) is notable for it's integration and extension of the problems associated with dimensionality (structural complexity), and the multiplicative assumptions in the belief-based measures of theories of Reasoned Action and Planned Behaviour discussed by others. In summarising his main concerns, Bagozzi (1985) identified six generic structural forms for belief-products in TRA and TOPB which he demonstrated were varied in terms of their conceptual and methodological (measurement) advantages and limitations. The six (eight[12]) generic models were derived from their cross-classification on three dichotomous factors: *level of aggregation or abstraction* (i.e. molar to molecular); the *combinational rules* used to derive belief products (i.e. multiplicative or additive); and *degree of structural complexity* (i.e. unidimensional or multi-dimensional).

The limitations of the unweighted uni-dimensional-summed-multiplicative model of belief-products originally proposed in TRA and TOPB for a research agenda focused on understanding the determinants of heritage visiting intentions are briefly reviewed below. A summary of the strengths and limitations of the six generic belief-models proposed by Bagozzi (1985) is given in Exhibit 1.1.

[12] Bagozzi (1985) identified 6 types of expectancy-value model, when total cross-classification along three dimensions would suggest that eight types of model would be derived. This is because in a discussion of molar and molecular structural complexity Bagozzi subsumes complex additive models as a special case. That is, two model types are subsumed as special cases.

a) Assumption of a Simple Uni-Dimensional Belief Structure

The assumption that behavioural, normative and control beliefs are uni-dimensional has been questioned in the studies of blood donation (e.g. Burnkrant and Page 1988, Bagozzi 1983), coupon usage (e.g. Shrimp and Kavas) and leisure activities (e.g. Ajzen and Driver 1991). Conceptually, relationships among belief-products are likely because beliefs can be causally related[13], have other function relationships[14], or because pieces of information (beliefs) can have similar content and act as parallel measures that have been caused by one, or more, common antecedents (Bagozzi 1982, 1985). Furthermore, it has been found that inappropriate summation of multi-dimensional constructs can seriously affect hypothesised relationships in TRA and TOPB, leading to invalid inflated, or deflated, predictions of the degree to which TRA and TOPB can explain intentions, as well as the relative contribution of Aact, SN and PBC in explaining intentions (e.g. Shrimp and Kavas 1983, Bagozzi 1983). In contrast, the structurally-complex (multi-dimensional) model groups together individual beliefs-products, thereby avoiding the measurement problems associated with multi-collinearity, while at the same time providing a greater level of detail concerning how belief-product are stored in cognitive memory structures, which is useful for product development.

The limited number of studies in heritage consumption which have found heritage experiences to be multi-dimensional (reported in section 1.1.1 and 1.1.3) suggest that the structurally-complex model of belief-products for expectancy-value beliefs is likely to be more appropriate for modelling heritage visiting intentions, than the traditional uni-dimensional conceptualisation of expectancy-value beliefs. As such, research focused on the structural complexity, or multi-dimensionality of expected and valued heritage experience opportunities is required to further substantiate these tentative claims. Furthermore, research is necessary to

[13] Bagozzi (1982) suggest that this occurs when one thought influences another or when one piece of information changes the meaning of a second. For example, this occurs in the relationship between price and quality (p. 563).

[14] Bagozzi (1982) states that functional relationships can include syllogisms, propositions or probabilistic statements (p.563).

Exhibit 1.1: Summary of Advantages and Limitations of Bagozzi's (1985) Six Generic Expectancy-Value Models

Abstraction	Integration	Limitations	Advantages
Molar Summed **Case I**	**Simple Interactive** **Examples:** Fishbein (1963, 1965) Fishbein and Ajzen (1975) Ajzen (1991) Ajzen and Driver (1991, 1992)	• Assumes each belief and evaluation contributes equally to an attitude in a linear fashion • Assumes individual expectancy-value products form a uni-dimensional construct • Takes no account for measurement error & therefore assumes it is negligible. Violation of the negligible measurement error assumption leads to underestimates of the effect of expectancy-value product on attitude and biased and inconsistent parameter estimates • Assumes ratio scaled measurement • Fails to explicitly represent expectancy-value products. As such individuals can have the same attitude but hold different beliefs and evaluations • Can only use Cronbach Alpha to assess reliability and this test assumes a uni-dimensional construct	• Good for representing global attitudinal reactions • Analytical requirements extend to simple regression
Molar Summed Case II	**Simple Additive**	• Assumes each belief and evaluation contributes equally to an attitude in a linear fashion • Assumes individual beliefs and evaluations form uni-dimensional belief and evaluation aggregate constructs • Takes no account for measurement error & assumes measurement error is negligible • Can only use Cronbach Alpha to assess reliability and this test assumes a uni-dimensional construct	• Good for representing global attitudinal reactions • Analytical requirement extend to simple regression • Does not require ratio measurement scales
Molar Summed Case III	**Structurally** **Complex Interactive** *or* **Structural Additive** **Examples:** Bagozzi (1983) Babin and Boles (1998)	• Assumes ratio scaled for the interactive model • Requires structural equation modelling package with latent variables • Although it does not assume uni-dimensionality, this model does not provide adequate tests for the convergent and discriminant validity of sub-dimensions hypothesised. • Assumes each predictor variable contributes equally to the expectancy-value sub-dimension to which it belongs	• Does not assume uni-dimensionality. Tests for presence of multi-dimensionality expectancy-value products • Takes account of measurement error making parameter estimate more reliable • Additive model does not require ratio scales • Provides reliability tests for individual observed variables as well as for the latent variable • Allows for testing of concurrent, predicative and nomological validities.

Exhibit 1.1 continued: Summary of Advantages and Limitations of Bagozzi's (1985) Six Generic Expectancy-Value Models

Abstraction	Integration	Limitations	Advantages
Molecular Disaggregated Case IV	**Simple interactive** **Examples:** Bagozzi (1981, 1982, 1983) Ryan (1982)	• Ratio scales measurement required • Requires structural equation modelling package with latent variables	• Identity of each expectancy-value product is retained • Measurement and random error are modelled explicitly • Tests that the expectancy-value products are uni-dimensional • Tests whether individual expectancy-value products contribute equally to an overall expectancy-value judgement as measured by a latent construct
Molecular Disaggregated Case V	**Simple Additive**	• Most disaggregated model which imposes difficulties in analytical capabilities • Severe problems with multi-collinearity between beliefs and evaluations reduces the precision of parameter estimates	
Molecular Disaggregated Case VI	**Structurally Complex** **Interactive** *or* **Structural Additive** **Examples:** Bagozzi (1981, 1982, 1983) Shrimp and Kavas (1984) Burnkrant and Page (1988)	• Ratio scaled measurement required for interactive model • Requires structural equation modelling package with latent variables • Meaning of observed variables is lost although the relative contribution of expectancy value or belief and evaluation sub-dimensions can be assessed	• Represents complex attitudinal reactions to object or actions • Avoids problems associated with multi-collinearity in predictor belief and evaluation variables • Takes account of measurement error • Provides reliability tests for individual observed variables as well as for the latent variable • Allows for testing the convergent, discriminant, concurrent, predictive and nomological validities. • Retains the meaning of individual expectancy-value products or beliefs and evaluations • Shows the relative contribution of individual expectancy-value products or beliefs and evaluations to sub-dimensions • Shows the relative contribution of lower (first) order latent construct to higher (second) order latent constructs.

Adapted from Bagozzi (1985, 1984, 1983, 1982, 1991)

examine whether individuals hold complex multi-dimensional belief structures for the control and normative influences that may affect their heritage visiting intentions.

b) Assumption of Salient Beliefs TRA and TOPB

In discussing the Theory of Reasoned Action, Fishbein and Ajzen (1975) stressed the need to incorporate only salient beliefs. However, there has been substantial evidence to suggest that the current practice of using modally salient beliefs leads to a situation where some individuals will be asked to report on non-salient items because of their differing behavioural intentions (Kristiansen 1987, Budd 1986, Woo and Castor 1980, Eiser and van der Plight 1979), or personality characteristics, such as state or action control (Dahab et al 1995, Bagozzi et al 1992). Several authors have demonstrated that the inclusion of non-salient beliefs depresses the correlations between key constructs in TOPB or TRA (e.g. Ajzen et al 1995, East 1993), while others have shown increases in predictive ability associated with the inclusion of an individual's 'personally' salient beliefs (e.g. Elliott and Jobber 1987, Rutter and Bunce 1989, Budd 1986, Towriss 1984). As a result some research attention has been focused on developing approaches capable of identifying an individual's 'personal' salient beliefs (e.g. Elliott and Jobber 1987, Rutter and Bunce 1989, Budd 1986, Towriss 1984); while others have concentrated on identifying the degree of salience an individual attaches to an over-inclusive list of beliefs through an assessment of attitude accessibility and response latency (e.g. Fazio 1986, Bagozzi 1986, Ajzen et al 1995). However, researchers have often found both these approaches are not viable due to the excessive increases in administration time, or research design complexity, and the technological requirements associated with the measurement of response latency[15].

Taken together, however, these studies, which have been concerned with the salience of beliefs included in expectancy-value modelling, highlight that the assumption of an

[15] However, the recently reported advantages of computer assisted interviewing (de Leeuw et al 1995) are likely to reduce the problems associated with the latter.

exhaustive list of salient beliefs is inappropriate based on current elicitation and measurement practices in expectancy-value attitude research. This in turn suggests that a lack of an exhaustive list of salient beliefs will lead to research, focused on identifying the determinants of museum visiting intentions, to underestimate the predictive and nomological validity of TRA and TOPB.

Complex, or multi-dimensional models, can however overcome the problems associated with an over inclusive list of belief-products. Unlike the traditional summated model, where marginally non-salient and salient beliefs would be given an equal contribution in predicting Aact, SN and PBC, complex models operationalised using a latent-construct methodology would give little weight to marginal, and non-salient belief-products, and as such their impact in predicting Aact, SN and PBC is minimised. Furthermore, another advantage of complex models operationalised with latent-construct methodology is that new redundant information will not affect causal parameters (Bagozzi 1985).

c) Assumption of Multiplicative Integration Rule in TRA and TOPB

Other concerns regarding the conceptualisation of summated belief-products as the antecedents of Aact, SN and PBC have focused on the ability of the multiplicative combinational rule to represent an individual's conscious experience in forming motivational choices (Grunter 1982, Bagozzi 1985). In particular, it has been questioned whether individuals engage in the type of cognitive algebra implied by TRA and TOPB. For example, it has been questioned whether individuals consciously multiply belief-likelihoods and evaluations, and then sum the products in order to arrive at an expectancy-value attitude composite. A few notable studies have, however, found support for the algebraic combinational rule as a means of describing the outcomes of unconscious mechanisms in an individual's semantic structure (Budd and Spencer 1986, Grunter 1982), and as such the

algebraic formations can be considered at least 'paramorphic models'[16](Dabholkar 1994) of decision making.

More substantive concern regarding the algebraic form of belief-based measures of Aact, SN and PBC has focused on the problems associated with the use of interval scales in operationalising the multiplicative products. In particular, Bagożzi (1984) and others (Evans 1991, Sparks et al 1991, Valiquette et al 1988, Hewstone and Young 1988, Ryan and Bonfield 1975, Schmidt 1973) have stressed that beliefs and evaluations in expectancy-value models are not ratio scaled, and as such operationalising the multiplicative integration rule on non-ratio scales is likely to incur significant methodological and conceptual problems. In terms of identifying the determinants of museum and heritage visiting intentions, it has been found that the choice of numerical range used in the interval scale has the potential to substantially alter the relationship between the product term (e.g. $\Sigma b_i \times e_i$) and a criterion variable (e.g. Aact or BI), making the meaning of the correlation between the product term and criterion arbitrary (Schmidt 1973, Evans 1991, Bagozzi 1984, East 1993). Although, several authors have advanced mechanisms to overcome these problems (e.g. East 1993, Bagozzi 1984, Holbrook 1977), the issues surrounding the most appropriate means of scaling remains somewhat unresolved. More problematic, however, for increasing our understanding of the belief basis of heritage visiting intentions are findings that the choice of numerical scaling range for interval scales results in different conceptual meanings for the belief-products derived (Bagozzi 1984, Sparks et al 1991, Hewstone and Young 1988, Cable et al 1987). As such, on a qualitative level the product terms produced from different numerical scaling ranges have different interpretations and meaning. Bagozzi (1984) has suggested that scaling options should be chosen on an 'a priori' conceptual basis whenever there was no firm knowledge of how to validly measure the belief-products. As such, at a qualitative level some discussion

[16] Paramorphic models are described as those models that do not represent the actual cognitive algebra within an individual's mind because they do not measure actual cognitive processes. These models instead represent decision-making models in the form of an analogy that are not equivalent to reality but the outcome of which have been found to explain and predict real phenomena (Dabholkar 1994).

regarding the implications of alternative numerical scaling ranges for modelling individuals' museum visiting intentions is required.

Bagozzi (1985, 1982) has also warned against the naïve adoption of the multiplicative rule, which, he argued, has been popular in studies more on the basis of its predictive effects, than on a detailed examination of the ability of the multiplicative integration rule to mirror cognitive processing. Bagozzi (1984) has highlighted the previously ignored additive integration rule as a viable structural model, appropriate for behaviours where beliefs and evaluations represent independent processes, and as such are distinct in their impact on overall attitude[17]. The potential appropriateness of this additive model for modelling heritage consumption choices can be found from the findings of studies in museum consumption, sociology, and consumer behaviour, which have highlighted the effects social learning and other cultural factors on the propensity of individuals to utilise cultural resources, such as museums (e.g. Merriman 1991, Prentice 1993a, Kelly 1993, Kelly 1987a&b, Bourdieu 1984). In contrast, the multiplicative integration rule usually associated with TRA and TOPB, suggests that behavioural beliefs and evaluations enhance each other's effects through releaser/facilitator, conditional dependence or mutual reinforcement cognitive processing (see Bagozzi 1982 for a review). In this way, multiplicative-belief models hold that there will be no effect on Aact or SN when beliefs, evaluations or motivation to comply are neutral (Bagozzi 1985). Clearly, one focus of a research agenda centred on determining the nomological validity of TRA and TOPB will need to be a discussion of the conceptual merits of the additive, and multiplicative integration rules for modelling the belief-bases of Aact, SN and PBC.

[17] Bagozzi (1984) proposed an additive model was appropriate for situations were behavioural beliefs represent cognitive processing at the level of self-awareness and as such are linked to attitudes. In contrast evaluations represent processes below the level of awareness, such as shared cultural experiences, social learning or mere exposure effects.

d) Assumption of Summated Indices of Belief-Products in TRA and TOPB

Bagozzi (1985), in addition to making a distinction between expectancy-value models in terms of complexity and integration rule, discussed the multiple implications associated with the level of abstraction, or aggregation, at which behavioural, normative and belief-products are modelled. Conceptually, these implications extend to our understanding of the motivational determinants of heritage-visiting intentions, while methodologically, a low level of abstraction offers substantial gains in terms of the ability to assess convergent and discriminant validity in expectancy-belief products, normative beliefs, and control beliefs. Traditionally, as shown in Figure 1.1, the belief antecedents of attitudes, subjective norms and perceived behavioural control were conceived as summated indices, or molar models (Bagozzi 1985). Molar models incorporate a high degree of aggregation so that individual beliefs and evaluations map onto a single, or multiple, summary indices, depending on whether the beliefs are found to be uni-dimensional or multi-dimensional. Conceptually, summated models are deficient because they allow individuals to hold the same quantitative attitude even though these individuals may have expressed different reactions to behavioural beliefs and desirability evaluations. The process of aggregation makes the individual beliefs and evaluations non-specific, and in doing so reduces the ability of molar models to identify the specific causes of attitudes and develop programmes aimed at market or product development (Bagozzi 1985). In terms of methodological deficiencies, the traditional Fishbein and Ajzen summated model has been criticised for assuming that each belief-product makes an equal contribution to a simple uni-dimensional, or complex multi-dimensional, expectancy-value attitude (Bagozzi 1985, Ryan 1982). If this assumption is violated, sub-optimality is likely to be introduced into the measurement and prediction of attitude. In contrast, molecular models, where no aggregation onto summary measures is undertaken, avoids the problems associated with aggregation in the molar models by using latent variable modelling, and allows the assumption that each belief-product carries equal weight in predicting Aact, SN and PBC to be tested formally. Taken together, Bagozzi (1988) suggests that molecular models are conceptually and methodologically more meaningful. However,

molecular models require significant computing power (Bagozzi 1985) and sample size to avoid 'overfitting' (Bagozzi 1985, Anderson and Gerbing 1988, Hair et al 1995) and as such have not frequently been employed. Clearly, research focused on identifying the determinants of heritage visiting intentions in order to gain information useful for market and strategic development needs to understand whether experiential-outcomes, resource control problems and social referent influences vary in the impact on visiting intentions. This suggests that a level of disaggregation in applying TOPB and TRA is required.

1.3 Focus and The Main Purpose of The Present Study

The study is focused on identifying the rewards and costs individuals perceive in heritage visiting, as the reasons why individuals do, or do not, visit these attractions, in order to build a predictive model of intended behaviour. Specifically, this study examines individuals' intentions to visit social history museums, and does not include other heritage attractions, such as castles and country houses, or other types of museums, such as science and technology museums or art galleries. The reason for this is that other heritage types were assessed to be too heterogeneous in their physical setting. The interpretative mixes of museum exhibitions in contrast have attracted considerable debate, and there is a clearer distinction of the range of physical setting types associated with these attractions. Jensen and Linberg's (1997) study, for example, identifies 'distinctions' in attractions to develop a typology of museum attractions based on their focus, and use, of authentic objects (objective-subjective), and static, or active, types of interpretative provision. This reflects the difference between object-orientated (no or little interpretation) and concept-orientated museums (where the majority of the exhibition is based on interpretative information), described on a spectrum of interpretative provision by Dean (1994), and adapted from Verhaar Meeter's (1989) *'Project Model Exhibitions'*. These differences in museums will be tested in the present study. Further, this study is focused on middle-class residents and as such the utility of the

Theory of Planned Behaviour and an assessment of the ability of The New Museology to overcome perceptual deterrents extends only to the class basis of those interviewed.

1.4 Aims of the Study

The overall aim of the thesis is to contribute to the understanding and knowledge of museum consumption behaviour framed within an experiential management approach. In doing so, this study aims to integrate diverse literature bases of museum and tourism studies, leisure science, consumer, behaviour and social psychology in order to improve both our conceptual understanding of the determinants of museum visiting, and to demonstrate the methodological (or measurement) gains associated with the a two-stage structural equation modelling approach of structurally-complex-summated belief models in the Theory of Planned Behaviour. The specific aims of the thesis are:

- to identify and measure the range of experience outcomes, constraints and facilitators, and normative pressures middle-class individuals associate with visiting social-history museums.
- to assess whether anticipated experience outcomes, perceived constraints and facilitators, and normative pressures to visit museums are mediated by the expected museum interpretative environment, and, in particular, to assess whether the New Museology is superior to the traditional media mixes used in museums to provide experiential opportunities and reduce perceptual and other resource deterrents.
- to identify the social, cultural and other 'determinants' of experience-outcomes, constraints and facilitators, and normative pressures associated with museum visiting.
- to develop a conceptual classification of expected and valued experience-outcomes, constraints and facilitators, and normative influences based on a formal assessment of their dimensionality and insights from other literature bases.
- to assess whether conceptual classifications of anticipated museum experiences, and constraints and control, can be generalised across museums that differ in their Museological orientation.
- to assess whether experience-outcomes, constraints and facilitator, and normative beliefs are equal in their contribution to museum trip decision making.

- to determine the predictive and nomological validity of The Theory of Planned Behaviour to explain the intentions of middle-class residents to visit social-history museums in the next 12 months, and in particular to:

    a) determine whether the predictive ability of TOPB varies across museum attraction type

    b) assess the extent to which the impact of attitudes, perceived behavioural control, and subjective norm, on visiting intentions depends on museum attraction type

    c) examine whether attitudes and global based measures of perceived control and subjective norm are sufficient in summarising the impact of value-contingent experience beliefs, normative beliefs and control beliefs on museum visiting intentions.

    d) assess whether variables external to TOPB can improve the predictive ability of the model attitude.

    e) assess whether past experience and gender moderate the bases upon which individuals form their museum visiting intentions.

    f) demonstrate the effect of inappropriately adopting an unweighted-simple and summated-interactive model of experience, subjective norm and control beliefs on the amount of variance explained in intentions and on the structural parameters relating attitude, subjective norm and perceived behavioural control to intention.

    g) demonstrate the utility of a two-stage modelling approach to capitalise on a detailed understanding of the belief basis of museum visiting intentions, while minimising the measurement problems and the inability to assess measurement quality found in traditional summated models, and to avoid the computational limitations traditionally associated with one-stage disaggregated-complex belief modelling.

1.5 Thesis Structure

The thesis is divided in a number of chapters. Although the chapters are distinct, each chapter represents a building block which will be combined in Chapter 8 to assess the Theory of Planned Behaviour in a museum visiting context. Literature bases that offer a contribution to building the model of Planned Behaviour, and which have not been discussed in the present Chapter, will be integrated with the empirical analysis.

This Chapter has served as an introduction to the thesis, and a critical review of the research topic. Chapter 2 will detail the methodology of the main research undertaken. It describes the quantitative-qualitative research approach employed in this study, where initial qualitative interviews served to identify the experience, constraints and normative influences individuals associated with heritage consumption, and which served as the basis to test some key hypotheses. The rationale for the sampling strategy employed; choice of museums and the development of the quantitative schedule are reviewed. Further, this chapter assesses the equivalence of the two museum sub-samples, in terms of socio-demographic characteristics, in order to provide a basis from which to directly compare the results of the two sub-samples in Chapter 5. The final part of the chapter outlines the quantitative analysis used in the study, and provides a graphical illustration of how these discrete analyses are combined in Chapter 8.

Chapter 3 examines the general incidence of museum non-visiting, and visiting, found among the middle-class Edinburgh residents surveyed. It also examines the extent of respondents' previous experience with the two contrasting styles of museum. These findings are discussed in relation to the incidence of museum visiting among the general population. The chapter also explores the potential 'causes' of museum visiting behaviour, examines the hypothesis of behavioural consistency in heritage consumption, and examines whether the issues of social selectivity bias in heritage consumption extend to middle-class populations. This chapter also confirms the equivalence of the two museum sub-samples in terms of their museum visiting incidence.

Chapter 4 identifies the range of pre-visit constraints, facilitators and normative pressures associated with museum visits. The Chapter draws substantially on the literature developed in social psychology, which have focused on perceived behavioural control, and identifies leisure constraints research as a potentially useful conceptual basis to build an understanding of the pre-visit resource negotiation and control experienced by museum visitors and non-visitors. The chapter compares these literature bases before assessing whether constraints, facilitators and normative pressures are multi-dimensional, and the potential 'causes' of

museum perceived constraint or control. Chapter 4 represents the first building block in the two-stage modelling approach adopted in the present study.

Chapter 5 identifies the range of experience-opportunities perceived in two contrasting museum environments and assesses the extent to which hypotheses regarding the superiority of The New Museology, and likely multi-dimensionality of anticipated museum experience, can be confirmed. These findings are discussed in terms of past museum research, studies in experiential consumption and tourism service delivery. The Chapter concludes by assessing the extent to which the experience-opportunities perceived in museum environments depend on socio-demographic, museum-related life-style, cultural socialisation and other differences in the population. These findings serve to demonstrate how behavioural beliefs in the Theory of Planned Behaviour mediate the impact of socio-demographic and other differences on museum visiting intentions. This Chapter, like Chapter 4, is a stage one building block in the two-stage modelling approach employed.

Chapter 6 examines the neglected topic of the value respondents attribute to the experiential opportunities they perceive in museum environments. The Chapter draws on Holbrook's (1986) axiology of value framework to examine the desirability value of museum experience outcomes. The analyses confirm the intended equivalence of the two museum sub-samples in terms of the desirability value they attach to museum experience outcomes. Further, the structural composition, or multi-dimensionality, of museum desirability data is compared to that found for behavioural beliefs (Chapter 5). This was undertaken in order to assess the ability to model expectancy-value products at an aggregate level using latent variables. As in Chapter 4 and 5, this chapter examines whether the socio-demographic, museum related lifestyle and cultural socialisation differences among respondents could be identified as 'determinants' for the desirability value they reported. This is found not to be the case and demonstrated that the value individuals associate with museum experience outcomes are not capable of mediating the effects of socio-demographic, leisure lifestyle, and other difference in the sample, on museum visiting intentions.

Chapter 7 combines the findings of Chapter 5 and 6 to measure value-contingent expectations. In particular, this analysis serves to assess the impact of combining measures of subjective probability (Chapter 5) and desirability (Chapter 6) on the multi-dimensional structure of anticipated museum experience. In this way it is concluded that the multi-dimensional anticipated museum-experience model identified in Chapter 5 can be generalised across museum attraction types. Further, this Chapter provides an opportunity to discuss the appropriateness of alternative numerical scaling ranges for modelling value-contingent museum experiences, and normative beliefs. In preparation for testing the predictive and nomological validity of TOPB for museum visiting intention, Chapter 7 identifies, and assesses the measurement quality, of global measures of attitude, subjective norm and perceived behavioural control. Chapter 7 pays particular attention to assessing the potential dimensionality of global attitude to represent the instrumental and experiential-process value individuals perceive in museum settings. Further, in order to provide information useful for strategic market and product development, as well as a basis to compare the present study to other leisure studies that have employed TOPB, Chapter 7 identifies how those who intend to visit, and those who do not intend to visit, vary in terms of their value-contingent experience expectations, perceptions of constraint and control, and normative beliefs.

Chapter 8 is the final chapter of empirical analysis and represents stage 2 of the two-stage modelling approach adopted. Here TOPB is assessed for its ability to explain museum visiting intentions in the two museums and its ability to mediate external variables. Particular attention is given to the relative explanatory power of attitudes, subjective norms and perceived behavioural control in predicting museum visiting intentions, and the moderating effects of past behaviour and gender on these relationships is observed. Chapter 8 also compares the Fishbein and Ajzen model of simple-summated-interactive beliefs with the complex-summated-interactive model advocated in the present study. Findings allow for a discussion of the importance of accounting for both measurement error and multi-collinearity when modelling the belief-basis of decision making.

The concluding chapter, 9, provides and overview of the main findings of the research and their implications for understanding museum, heritage and experiential consumption, as well as addressing the limitations of the study and providing suggestions for further research.

Chapter 2: Methodology

Introduction

This chapter begins with an overview and rationale for the two-stage research approach undertaken. Each stage of the research design is discussed in detail, and an overview of the main themes found in qualitative analysis (stage one), which formed the basis for the quantitative schedule (stage 2), is given. The chapter concludes by summarising the main techniques employed in quantitative data analysis and the relationship between these techniques in building and testing models of museum visiting behaviour.

A two-stage qualitative-quantitative research design was followed and responds to calls for methodological pluralism in understanding the museum visitor (Zavala 1993), whereby the trade-offs between in-depth understanding and empirical generalisation are minimised (Blakie 1993, Brannen 1992). The design sought firstly to identify and understand pertinent museum experiences, facilitators and constraints using personal focused qualitative interviews (Sampson 1993), and then to measure their pertinence and interaction as a basis for modelling propensity to visit. The research design is similar to recent museum and heritage studies (Harrison 1997, Prentice, Witt and Hamer 1997, McIntosh 1997, Jansen-Verbeke and van Rekom 1996, Soren 1995, Merriman 1991, Griggs 1990, Edwards et al 1990) and aimed for method triangulation, the benefits of which have been demonstrated in a number of different leisure, tourism and consumption studies (for example, Shelby and Morgan 1996, Otto and Ritchie 1996, Arnold and Price 1993, Echtner and Ritchie 1993, Crompton et al 1992, Driver et al 1991). All fieldwork was undertaken in Edinburgh, Scotland.

Figure 2.1 summarises the main stages of data collection undertaken in this study
(see next page).

Figure 2.1: Sequential Diagram of Data Collection and Analysis

Sampling: Choose 2 Contrasting Electoral Wards in Edinburgh

- develop an index of social advantage to deprivation using 1991 Census Data
- rank 62 wards using two indicators of social advantage and deprivation
- choose two electoral wards as the sampling districts in Edinburgh and the polling districts within each ward

Stage One Data Collection: 30 Qualitative Unstructured Interviews

- chose a convenience sample of respondents from Tollcross and NE Corstorphine using the telephone directory and identifying relevant postcodes. Sampling continued until no further insights were gained. This resulted in 30 respondents; 15 respondents in Tollcross and 15 in NE Corstorphine.
- aim was to identify emerging experiential patterns or themes from respondents' 'real lived' descriptions of consuming and not consuming museums, castles, landscape heritage and the theatre
- unstructured interviews with a skeleton prompt guide to retain some consistency in the data secured
- one to three hours in duration in respondents' homes
- tape recorded and transcribed verbatim
- analysis based on identifying global themes in terms of the emerging patterns of similar experiential consequences respondents described
- decision to restrict the main study to museums rather than examine several types of heritage attraction
- decision to restrict the main study to a sample of middleclass residents

Stage Two Data Collection: 400 Structured Questionnaires

- 200 further respondents in each electoral ward were identified as sample units using a systematic random approach
- interviews were conducted in respondents' homes (August 1995 to January 1996)
- pictorial collages as an interview stimuli to define two contrasting museum types, the *idea and object-based* museum. One hundred respondents in each electoral ward were asked to evaluate the idea and object based museums
- 20 pilot interviews were undertaken and minor modifications were made (August 1996)
- revised questionnaire measured 42 experiential outcomes, 21 constraints or facilitators and 4 social referents identified in qualitative interviews. In addition measured attitude, perceived behavioural control, social norm, museum related pastimes, leisure pastimes, museum behaviour and respondent's socio-demographic characteristics
- final interview schedule took 35-50 minutes to complete

2.1 Stage 1: Qualitative Data Collection

Due to the general lack of empirical investigation into the experiential images and memories of heritage visiting, the first phase of research was inductive in nature and aimed at an in-depth understanding *or 'thick description'* (Howe 1991) of respondents' *'real lived experience'*, and included both their general *leisure consumption* and *heritage consumption.* The flexibility of qualitative approaches generally, and in contrast to the prompted or predetermined responses of a hypothesis-testing paradigm, ensured that the second and quantitative phase of the present study was grounded in respondents' reality of leisure consumption and museum consumption in particular (Walker 1985).

Chapter 1 identified leisure consumption as likely to be experiential and hedonic, as well as, *or* as opposed to, the traditional view of consumer behaviour as rational, instrumental and goal orientated. There has been a general consensus, both theoretically and empirically, to view interpretative and qualitative approaches as the most appropriate in studying experiential and hedonic consumption (Lofman 1991, Mowen 1988, Hirschman and Holbrook 1986, Holbrook and Hirschman 1982, Hirschman and Holbrook 1982). To date, interpretative qualitative methods have been used in a number of experiential contexts including gambling (Cotte 1997), advertising (Elliott and Ritson 1995), motorcycling (Shouten and Alexander 1995), beach breaks (Williams and Burns 1994), marriage (Elliott 1998), white-water rafting (Arnold and Price 1993), drug addiction (Hirschman 1992), self-gifts (Mick and Demoss 1990), shopping (Thompson et al 1990) and consumption stories (Durgee 1988). Museum research, in contrast, has been criticised for not understanding what consumers mean by *'enjoyed'* (Hudson 1993) or *'not interesting'* (Davies and Prentice 1995) and relying on summary and concrete means of measuring museum consumption. Qualitative interpretative orientations are able to explore subtleties and nuances by understanding the individual's reality (or worldview) and the meaning (context) individuals attribute to their experiences. Further, it has been noted that

there exists a natural sympathy between qualitative methods and cultural experiences (Tower and Cooper 1992): qualitative research is dynamic, capitalising on individual's creativity and at the same time can be 'descriptive' (Tower and Cooper 1992, Walker 1985)[1]. This 'sympathy' between qualitative methods and cultural experiences offers further support for a qualitative phase of research. More recently interpretative qualitative methodologies have gained in popularity in leisure research (Wearing and Wearing 1996, Walle 1996, Jackson et al 1996, Botterill and Crompton 1996, Hemingway 1995, Glancy 1993, Ryan and Dewar 1995, Howe 1991, Schmitz-Scherzer 1990) and museum studies (Fitchett and Saren 1997, McManus 1993, McDonald 1992, Csikszentmihalyi and Robinson 1990), while semi-structured qualitative interviews and content analysis have been popular in heritage studies (for example, Prentice et al 1998, Beeho and Prentice 1997).

In contrast to much of the research undertaken on experiential consumption, the elicitation procedure associated with applications of multi-attribute attitude models, including The Theory of Reasoned Action and Planned Behaviour, have tended to be less in-depth compared to the approach adopted in the present study (see East 1997 for examples). The elicitation procedures, used in multi-attribute attitude studies have generally been unstructured or 'free elicitations', and respondents have been asked to list the advantages and disadvantages or consequences of performing a behaviour. Alternative elicitation procedures could, for example, have included Kelly's repertory grid or hierarchical dichotomisation (Steenkamp and Van Trijp 1997). Recently, Steenkamp and van Trijp (1997) compared three elicitation procedures; free elicitation, Kelly's repertory grid and hierarchical dichotomisation . Free elicitation procedures were found to produce a greater number of abstract attribute associations,

[1] Descriptive in the sense of identifying common experience themes that may be qualitatively different, in comparison to description in a statistical/objective sense where phenomena are considered equivalent and as such can be counted (Cooper and Tower 1992).

achieve a higher level of articulation[2], and to be evaluated more positively by respondents than either Kelly's repertory grid or hierarchical dichotomisation elicitation (Steenkamp and van Trijp (1997). Based on these findings of Steenkamp and van Trijp (1997) and the importance in the present study of gaining an understanding of the meaning associated with abstract attributes that are likely to be elicited during 'free elicitation', a in-depth approach to 'free' attribute elicitation was considered necessary, while there was a desire to retain some consistency with studies in multi-attribute attitude modelling.

The qualitative phase of this study is framed within an existential-phenomenological methodology and sought to explore leisure and heritage consumption and to identify emerging experiential patterns (Thompson et al 1989, Hursserl 1911, Heideggar 1962, Maesberg and Silverman 1996). Phenomenology is an orientation appropriate to study the subjective experience of individuals (Elliott 1998) and is consistent with the *'Thought-Emotion-Activity'* model of consumption experience (Hirschman and Holbrook 1986). Phenomenology sees meaning as socially constructed and seeks to describe experience as it is *'lived'* in the world-view of the respondent. By understanding experience from the respondent's perspective (i.e. contextualised), phenomenology is able to capture first-person descriptions of emotional responses and determine structures or patterns of experience (Elliott 1998, Thompson et al 1989).

Thirty unstructured interviews were undertaken in August 1994. Interviewing continued until no further insights were gained (Cotte 1997). The interview focused on general leisure pursuits and in particular on the respondents' consumption experiences of *built* (castles), *natural* (landscape) and *cultural* (museums and theatre) heritage (Herbert 1989). A skeleton

[2] Articulation refers to the absolute number of ideas as well as the degree of differentiation in ideas expressed (Steenkamp and van Trijp 1997).

interview guide was used to ensure consistency in the data secured (see Appendix 1) in common with phenomenological studies elsewhere (e.g. Elliott 1998, Pocock 1992).

Respondents were randomly generated from the telephone directory (from the two wards used in sampling procedure outlined later) and were sent a letter asking for their participation. Interviews varied from one hour to three hours in duration and took place in respondents' homes. Interviews were tape recorded and later transcribed verbatim.

The specific interest of the study in museum and heritage consumption was concealed from respondents, with a general leisure orientation being offered as the rationale of the study. This ensured that an unprompted understanding of *if* and *how* museum and heritage consumption was represented in the respondents' non-work activities. In this way the key driving forces (motives or push factors), leisure socialisation, activity attributes (both experiences and benefits spatially divorced from the activity itself), and facilitators and constraints respondents attached to their usual leisure activities and heritage visiting could be understood. Together, concealing the exact purpose of the study, the existential phenomenological approach of asking respondents to *'re-live'* or *'tell a story of their experiences'* (Thompson et al 1989), and an effort to achieve prolonged engagement (1-3hours), aimed to limit respondents' rationalisations, social normative responses and over-representations of their museum consumption.

Other purposes of the qualitative interviews were to establish ideas of frequency of leisure behaviour across different activity types and the situational context of visiting. A subsequent aim of the qualitative analysis was to determine the appropriate literature bases that could inform the quantitative stage of the study. In particular, analysis of the qualitative interviews sought to identify the prominence of experiences and constraints in respondents' past heritage museum experiences in order to assess the potential validity of testing the Theory of Planned Behaviour, and including theories on leisure constraints, in addition to testing the Theory of

Reasoned Action, and theories relating to the consumption of leisure benefits. It was found that constraints or perceived control were a significant factor in heritage consumption and as such, the second quantitative stage of this study sought to test the Theory of Planned Behaviour and included both museum experiences attributes, constraint and perceived control and social normative influences.

The qualitative interviews and analysis were emergent and aimed to be emic in nature, with the areas of interest being continually refined in light of further insights gained. Interviews began with the *'grand tour'* asking respondents to detail their general leisure pursuits out of the home. This served to assess respondents' consideration or opportunity sets, the extent of joint decision-making and allowed the author a basis from which to probe respondents for consumption experiences in the leisure activities they identified. Essentially respondents relived memorable experiences and as such the technique has parallels with critical incidence. Respondents directed the flow of the conversation, and in the latter stages of the interview were probed about consumption experiences of heritage if they had not discussed heritage previously. Interviewer probes took the position of 'naive scientist' (Thompson et al 1989), asking respondent if they could *"tell me more about what happened, what it felt like, what they were thinking at the time"*, and avoided asking "why" to ensure the conversation did not slip into rationalisations and abstracted descriptions of events.

Table 2.1 shows that the data secured during the qualitative phase of data collection reflect the experiences of a range of occupation, gender and life-cycle groups, and as such achieved triangulation of sources, adding credibility to the themes derived. Triangulation of methods using different visual stimuli such as photographs or different questioning techniques were not attempted and the interviews relied purely on the respondents' description of their own experiences. Further triangulation across researchers was not feasible, due to cost constraints and the degree regulations under which this study is framed. However, peer debriefing,

where the author met with supervisors to discuss emerging themes, a reflexive journal and negative case analysis were used to develop trustworthiness (Arnould and Wallendorf 1994, Lincoln and Guba 1985).

Table 2.1: Profile of respondents for qualitative interviews

	N=30	%
Occupation (OCPS 1991 Classification)		
I	*13*	43.3
II	*7*	23.3
III	*7*	23.3
IV	*3*	10.0
V	*0*	0.0
VI	*0*	0.0
Education		
Higher degree	*9*	30.0
First Degree	*6*	20.0
Higher Education below degree	*8*	26.7
GCSE or equivalent	*4*	13.3
None	*3*	10.0
Age:		
16-29 yrs	*2*	6.7
30-39 yrs	*15*	50.0
40-49 yrs	*3*	10.0
50-59 yrs	*3*	10.0
60-69 yrs	*5*	16.7
70 and over	*2*	6.7
Household Type:		
Living alone	*9*	30.0
Living with partner	*4*	13.3
Have dependent children under 7 yrs	*6*	20.0
Have children 7 yrs and over	*6*	20.0
Have children who have left home	*5*	16.7

Forty-two experiences and 21 constraint themes capable *of "understanding the people studied"* (Patton 1990, p 392) and particular to heritage visiting were defined from the qualitative interviews and are detailed in Table 2.2 (See Appendix). These were based on the most frequently occurring (modal), or dominant, concepts expressed by museum visitors and non-visitors.

Experiences or museum experiential attributes were found to vary in terms of emotion/hedonism and cognitive/utilitarian orientation and, in particular, many of the

experiences focused on projective personal images; connecting with the past; acquiring new knowledge or insights; personal reflection and renewal; the opportunities to be interactive with the exhibition; and unsettling or uncomfortable experiences (see Table 2.2, Appendix). Principally four social referent groups were identified, including children, partner, other family and friends. This finding is consistent with the notion of museum visiting as an activity principally situated in the leisure domain (e.g. Prentice 1993a). Some references were made to the influence of work colleagues on museum visiting behaviour or potential rewards from visiting; however, these were primarily from those people for whom arts or cultural activities were revealed to form part of their working lives. Table 2.2 (see Appendix) also shows that constraints and facilitators fell into three distinct groups: 1) time, planning and resources allocation problems; 2) situational constraints and facilitators; and 3) knowledge-based constraints and facilitators.

Overall, the qualitative interviews and analysis served to increase the validity of the quantitative schedule, which formed the second hypothesis-testing stage of data collection (Blaikie 1993, Brannen 1992). Such methodological pluralism, or 'alternative ways of seeing' (Hudson and Ozanne 1988), it has been argued have become a 'liberatory' feature (Firat and Venkatesh 1995) of contemporary research (Firat and Venkatesh 1995, Hirschman 1986, Hunt 1991, Hudson and Ozanne 1988, Desphande 1983). The present study, in following a two stage quantitative-qualitative approach goes some way to accepting a critical pluralistic (Hunt 1991) or relativistic[3] (Hudson and Ozanne 1988) perspective; each stage of the research was seen as valuable in understanding the nature of heritage consumption and each stage was evaluated

[3] Relativism here is not meant in the sense of rival, incommensurable, nilhism, solipsism or incoherence but that each orientation has a value and something to offer 'science', where science is seen as a process of generating knowledge. Critical relativism is taken to mean that each research tradition or phase should be evaluated on its own epistemological concerns (Peter 1982, Anderson 1986). For example, McQaurrie and Mick (1992) exploited the synergistic insights of critical pluralism by combining interpretative approaches (semiotic text analysis with phenomenological interviewing) and positivistic approaches (content analysis and experimentation) in researching advertising rhetoric. Others have explored the tangencies and differences between positivist and interpretative approaches (e.g. Fischer 1990, Dephande 1983).

against its own epistemological concerns and traditions. In this way the qualitative data collection stage serves to understand shades of meaning that lie behind the statistical formulations of the quantitative analysis (Desphande 1983).

2.2 Stage 2: Quantitative Data Collection

2.2.1 Moving from a Qualitative to a Quantitative Instrument

Although many phenomenological studies have relied primarily upon qualitative data collection techniques, quantitative methods have not been excluded and are not totally inconsummate with this paradigm: Holbrook and Hirschman (1982), for example, noted that multivariate analysis may be more appropriately applied to experiential goods and leisure activities, which are high-involvement consumption products, than to some low-involvement products, such as detergents or canned peas, which are low involvement (Hirschman and Holbrook 1982, p 134). Holbrook and Hirschman have further suggested *"using structured projective techniques that employ quantifiable questionnaire items applicable to samples large enough to employ statistical hypothesis testing"* in order to probe beneath the consciousness and overcome sensitivity when exploring fantasy and key symbolic meanings (Hirschman and Holbrook 1982, p 136). Pekala and Levine (1981), for example, have developed a questionnaire of 60 Likert items to measure the structure of conscious experience, and employed factor analysis to determine 9 dimensions of conscious experience, while Hirschman and Holbrook (1982) have advocated the combination of traditional scaling techniques and physiological indices of arousal to reflect the complexities of hedonic consumption, and have also highlighted the usefulness of sensation-seeking (Zuckerman 1979), arousal-seeking (Raju 1980) and Type A versus Type B personality (Friedman and Rosenman 1974) scales for understanding individual differences in hedonic consumption.

More recently experiential research has employed experimental designs using scaled questionnaire items (for example, Holbrook et al 1994, Lacher 1994, Mittal 1994, Holbrook et al 1984); has used self-administered field survey questionnaires with scaled items (for example, Cooper-Martin 1992, Westbrook and Oliver 1992, Hirschman 1983); and has subjected the data to a range of multivariate analyses including ANOVA's (Cooper-Martin 1992), K-means cluster analysis (Westbrook and Oliver 1991) multi-variate stepwise regression (Holbrook et al 1994, Holbrook et al 1984), structural equation (Mittal 1994) and other mathematical modelling programmes (Eliasberg and Sawhney 1994). Clearly, quantitative approaches have yielded significant insights into experiential consumption.

However, although the advantages of quantitative data include that statistical sub-group comparisons can be made and the relative effects of explanatory variables on behaviour and the consumption experience can be determined, quantitative instruments have a number of disadvantages. Variables for the present quantitative instrument were derived from the qualitative data and as far as possible retained the same wording and language to maintain an emic quality to the research design. However, by reducing descriptions of experiences and facilitators to short statements, which could be incorporated into a quantitative instrument, the in-depth nature and some of the personal meaning attached to those experiences and facilitators identified, may have been lost. This has the potential to give a more simplistic view of consumer (Hudson 1993). Further, in the application of a quantitative schedule, respondents are often not given time to reflect on the 'experiential' statements given to them during the interview and as such may not have been able to become imaginatively or personally involved with what these statements described, a situation others have highlighted as the inability of respondents to reduce rich experiences to short verbal labels (Elliott 1998, Hirschman and Holbrook 1982). Respondents, as such, are usually reactive rather than reflective in their treatment of quantitative measures (Hudson 1993). An attempt was made, in the present survey, to move respondents from a reactive to a reflective mode of response through some

preliminary open-ended questions in the questionnaire. The type and purpose of open-ended questions in the quantitative schedule will be discussed later in this Chapter (see Section 2.2.3).

2.2.2 Aims of the Quantitative Schedule

The following six aims were addressed through quantitative data collection and analysis:

1) to assess the generality of image-experiences, values, constraints and facilitators expressed during the qualitative interviews and determine if these vary by museum heritage type;

2) to determine individual differences in heritage consumption explained by socio-demographics, including socialisation as well as preferred leisure attributes;

3) to assess the dimensionality of museum experiential images, values, constraints and facilitators in order to understand the structure of museum heritage consumption, i.e. whether museum consumption is holistic and aggregated, or whether it exists as a complex structure of distinct latent variables;

4) to identify the experience and control variables which are capable of summarising anticipated museum experiences and perceived control, in order to arrive at a sub-set of variables which could be used as explanatory variables in modelling propensity to visit heritage attractions;

5) to examine the ability of multi-attribute expectancy-value models to explain propensity to visit heritage attractions;

6) to determine if distinct sub-groups of the population vary in the experiences they value and the constraint or facilitators that effect their ability to visit heritage attractions.

2.2.3 The Quantitative Schedule

Museum consumption experiences, social influences, constraints and facilitators were operationalised in the quantitative schedule using seven point Likert scales, consistent with studies using expectancy-value models (e.g. Sheppard et al 1988, Fishbein and Ajzen 1975) and in the study of leisure behaviour generally (e.g. Manfredo et al 1996, Manfredo and Larson 1993, Driver et al 1991). Museum studies, in contrast, have tended to use three or five point

scales (e.g. McIntosh 1997, Prentice, Witt and Hamer 1998, Prentice et al 1997) because of problems of interviewing on-site or because postal surveys were used. Although strictly ordinal in quality, seven point Likert scales can be considered at least interval level in nature and appropriate for parametric testing, subject to other qualities (such as skew and Kurtosis) in the data (Hair et al 1995).

The questionnaire also collected information relating to museum visiting behaviour (frequency, recency, intention, behavioural consistency in heritage visiting, situations for visits), museum socialisation (interest and visits as a child with family school etc), museum related behaviour (heritage extra-mural education, reading, genealogy etc), general leisure attribute preferences and activities undertaken, and socio-economic demographic information. To account for data collection through the late summer months, autumn and winter period, all behavioural measures, except recency, asked for museum behaviour in a 12 month period so as to account for seasonal variations, and holidaying in particular (Prentice 1993), and allow for comparisons with other studies to be made (for example, Merriman 1991, see Chapter 3).

In addition to the above structured questions, the questionnaire included several open-ended questions to assess respondents' perceptions of the museum collages used and museums generally. The open-ended questions served several purposes: firstly, they acted as an orientation device which prompted respondents to place themselves in the museum collage they were exposed to, and as such move them to a more thoughtful and grounded mode of response. Secondly, these questions provided a mechanism to determine the validity of the pictorial stimuli used to represent two contrasting positions on an interpretative style continuum. Lastly, the open-ended questions were used to assess whether important experience dimensions had been omitted.

Personal interviews in a respondent's home were seen as the only appropriate method of data collection for several reasons. In the first instance the length of the questionnaire, which contained 158 questions, required personal administration in order to reduce respondents' fatigue and encourage respondents to complete the schedule (Churchill 1996; McDaniel and Gates 1996). In addition, the complexity of the schedule, which employed visual stimuli and required the stimuli to be revealed only once perceptions of desirability had been captured, made the potential use of either telephone or mail stimuli inappropriate. Lastly, the quantitative schedule included several sensitive demographic and cultural backgrounds questions, collected in order to profile and test for socialisation and culture effects on museum behaviour, and as such required a personal interview to reduce bias from non-responses (Baker 1991).

Qualitative data and the first phase of data collection were collected over several heritage types, and this information offered invaluable insight into the substitutability and complimentary nature of heritage attractions. These heritage types included museums, theatres, heritage landscapes and castles. It was the initial intention of the current study to use the experience and facilitator measurement categories to collect data over a range of heritage types considered in the qualitative interviews. However, pre-pilot testing of the quantitative instrument revealed a strategy of several heritage types to be inappropriate. This would have involved the multiple exposure of respondents to similar question sets, which would have introduced the potential for type II errors, and in addition this approach would have raised the interview-time to in excess of one hour, which was considered an overly lengthy interview-time. In addition the question of asking respondents to rate more than one heritage type raised questions regarding appropriate scaling formats to limit or encourage direct comparison (Driscoll et al 1994). Alternatively, the number of samples would have had to be increased and pairwise comparisons attempted. However, it was not feasible within the time period or budget to increase the number of samples taken. For these reasons the quantitative schedule was restricted to one heritage type.

It was decided to limit the quantitative schedule to museums, as a consideration of other heritage types explored in qualitative interviews revealed several threats to validity or reliability. The following rationale explains this choice: firstly, theatre and landscape heritage offer contextually very different experiences to those experiences offered at museums and castles. This was believed to limit the ability for meaningful comparison between these heritage types. Further, theatre and landscape heritage were excluded from the study because they subsume a diverse array of 'product' offers which cannot be easily described along mutually exclusive dimensions thereby making clear categorisation difficult; in fact for these heritage types there exists several types of product which need separate investigation. In contrast museums and castles can be summarily categorised as open-air, industrial, local history, ruins, furnished etc. (Prentice 1993a) as well as in terms of their interpretative orientation (or museum style).

Castles, although a substantial component of the heritage attraction supply in Scotland, were found in qualitative research to be primarily a holiday activity (often outwith Scotland), with significantly smaller incidence of repeat visiting than occurs for museums. Castles were therefore eliminated on the grounds that they would largely limit the understanding gained from the present study to heritage tourism alone. Museums as such seemed to offer the best contextual basis for understanding recreational heritage-based consumption more generally.

Twenty pilot interviews were completed in July 1995 and, following minor revisions, 400 respondents were interviewed during August 1995 to January 1996. The schedule took 35 -50 minutes for to complete with respondents. The final data collection instrument consisted of a question schedule, which was completed by the author, and a folder containing prompt cards, for rating scales and fixed format questions, and a museum collage, which was given to the respondents. In order to correctly operationalise and test the appropriateness of expectancy-value based models, respondents were instructed not to look at the collage until later in the interview. This ensured that respondents were not exposed to a defined idea of a museum until questions regarding values had been completed.

Data collection took place primarily in the evenings from 5 p.m. until 10.30 p.m. and at weekends. Weekday interviews were suitable for the retired, unemployed and those respondents taking a day off work. The time of day and day of the week are not expected to have affected the data collected.

2.2.4 Sampling

To date, most research concerned with explaining museum and heritage visiting and consumption behaviour has relied on convenience sampling associated with on-site exit surveys (e.g. Prentice et al 1998, McIntosh 1997, Prentice 1993a, Moscardo 1991, McManus 1991, Prince 1983, Alt 1980). The present study employed multi-stage probability sampling. Sampling was consistent across both stages of data collection and concentrated on urban residents of the capital city of Scotland, Edinburgh.

The first stage of sampling consisted of choosing two contrasting electoral wards from the 62 wards in Edinburgh. Two electoral wards, one middle ranking in terms of social advantage and the other middle ranking in terms of social disadvantage were selected, using an index of affluence/deprivation derived from multivariate analysis of 1991 Census data as the sampling basis for the study.

a) Deriving a scale of advantage to deprivation and choosing the sampling wards

Indicators of affluence and deprivation are a key conceptual stance upon which to differentiate the population, linking together socialisation, financial opportunity and physical access, attributes that have been shown to be important indicators of museum visiting and participation in leisure pursuits generally. Initially 26 variables from the 1991 Census for Scotland were identified as proxy measures of affluence and deprivation. However 15 of these variables were found to be highly skewed and therefore inappropriate to parametric analysis. As such, only 11 were retained in the final composite index.

Principal component analysis revealed three latent dimensions, with eigenvalues of greater than one. Together these explained 69.8% of the variance in the Census data as shown in Table 2.3.

Table 2.3: % Variance Explained by Rotated Principal Components Analysis

Component Factor	Eigenvalue	% of Variance	Cumulative % of Variance
1	3.95901	**36.0**	36.0
2	2.18542	**19.9**	55.9
3	1.53551	**14.0**	69.8

The three dimensions were described from those variables on which they loaded most highly (refer to Table 2.4), but only the first represented social advantage and disadvantage. The first dimension represented affluence, the second age, and the third population transience. Component 1, interpreted as affluence and explaining 36% of the variance, was chosen as basis of the composite index. Component 1 was operationalised in terms of the variables most correlated with it.

By ranking the 62 electoral wards of Edinburgh in terms of average number of rooms in a household and the number of households with more than 2 cars, the selection of sampling locations was achieved by co-presentation of extents of multiple social and economic

Table 2.4: Identifying the Three Latent Dimensions in Census Data

Census Variables	Component 1 Affluence/Deprivation	Component 2 Age	Component 3 Population Transience
Number of rooms	**.89552**		
Over 2 cars	**.87522**		
Purpose-built flat	**-.81894**		
Owner Occupier	**.71163**		
One person	**-.66539**		
Moving households	-.55290		
Car Owner	.42005		
Age Retired		**.96026**	
Lone Pensioner		**.96313**	
Ground floor flat			**.87329**
Under 16 years old			-.07372

Varimax Rotated Factor Matrix

advantage and disadvantage. Wards ranked at the upper and lower quartiles of the composite index were chosen to avoid basing the sample at the extremes of the population; the quartiles being interpreted as the respective 'averages' of comparative advantage (upper quartile) and disadvantage (lower quartile).

At the lower quartile, Tollcross is an inner urban population, and at the upper quartile, North East Corstorphine is a suburban population. As such, in addition to representing lower and upper quartile positions on a scale of social advantage to deprivation, the wards were contrasting in terms of inner urban and residential locations. This is important as proximity to museums and lifestyle differences are generally considered to affect visiting behaviour, choice and habits (Light and Prentice 1994b, Prentice 1989, Andreasen and Belk 1980).

b) Sample Size

Qualitative and quantitative interviews were sampled in both sampling wards. As mentioned previously (section 2.1), thirty qualitative interviews were undertaken in the first phase of data collection, a number justified as analytical sampling (Yin 1994) of the range of concepts as opposed to statistical descriptive sampling of a population. Further interviews were conducted until no further insights were gained to ensure the researcher was exposed to an exhaustive list of ideas and main themes. In contrast statistical sampling was the major objective of the second and quantitative phase of this study. Four hundred respondents were selected by a systematic random method, within the two wards. The interval to operationalise the systematic random selection of respondents within the two wards was chosen to reflect the relative differences in size of the two electoral wards and the desired sample size. Further, the sample size of 400 was justified based on the intended analyses of the data, the number of respondents in each electoral ward (n=200) being more than twice the number of scale items (experiences n= 42, constraints n= 21, social norms = 5) used in the analysis (Otto and Ritchie 1996).

c) Restricting the Study to the Middle Class Residents

The first phase of qualitative research and several other studies have found that respondents from the lower social classes were less able to articulate their thoughts and emotions concerning visiting (e.g. Duhamie et al 1995, Sherry et al 1993); were deferent or hostile towards the idea of museum visiting (Rees 1994); and often did not include heritage visits as part of their consideration or evoked cognitive set (Prentice, Davies and Beeho 1997, Rees 1994, Prentice 1993, Merriman 1991). As such, the quantitative schedule was limited to the middle-classes to ensure a good standard of reliability. This type of sample restriction corresponds to sampling suggested for hedonic consumer research where sub-groups are identified a priori (Hirschman and Holbrook 1982). Researchers interested in hedonic consumption have recognised that there are differences between sub-cultures in their emotions towards and fantasies about products, and their perceptions of which product classes are capable of satisfying hedonic needs. Further, its has also been widely noted that sub-cultures are sustained through complex socialisation (e.g. Bourdieu 1984). Social class has been recognised as a sub-cultural socialisation agent, which teaches and reinforces hedonic activities appropriate to an individual's social position (Hirschman 1982). As such, in the present study the quantitative data collection focused on visitors and non-visitors from the *middle-classes*, a group which is assumed more readily subject to opportunity theory and to social normative pressures to visit (Prentice 1998, Richards 1996, Harrison 1987, Merriman 1991, Prince 1985, Bourdieu 1984). Further, this was necessary as attitude theories, and *The Theory of Planned Behaviour* in particular, are predictive models of *purposeful* and *goal-directed* behaviour, which *assume* and *require* that individuals hold museum visiting (or other target act) within their cognitive evoked set (Um and Crompton 1990, Woodside and Lysonski 1989, Howard and Sheth 1969), a condition satisfied by the social normative pressures operative in the middle-classes.

Filter questions using the occupation of respondents and their spouse were employed and only respondents from *households* of social classes 1, 2 and 3N were included. A further

five proxy measures of social class were collected in the quantitative schedule and included respondents' and their parents' educational qualifications, household income, self-rated social class and the social class of respondent's father when they were aged 10 years old. Together these measures account for present social class based on occupation, disposable income, socialisation (parent's education and father's occupation at 10 years), as well as respondent's subjective appraisal of their class membership. All seven social class measures were used to derive a composite index of 'middle-classness' so that differences in behaviour could be observed over a composite of social class indicators. The index was derived by converting each variable into a 12 point scale[4] and dividing the sum of scores across the indicators to achieve an average. Account was taken for missing variables, and the contribution of socialisation and present socio-economic status were allowed to be equal. The scale, however, is crude in that equal weighting is given to present socio-economic status and socialisation. However, in the absence of an understanding of the contribution of socialisation to the respondents' present social class, differential weighting was not considered appropriate. After deriving the scale, respondents were further split into 4 groups based on the quartile divisions on the scale. Table 2.5 confirms that the middle class index divides the sample equally into 4 middle-class groups.

d) Systematic Random Sampling Method

Systematic sampling was used to select respondents from the electoral registers for February 1995. Electoral polling districts were employed as the sampling frame, and were matched with the census wards of NE Corstorphine and Tollcross. Three polling districts made up each of the census wards. In using the electoral registers intervals of 'eight' in N.E. Corstorphine and 'six' in Tollcross were used to operationalise the systematic sampling method, the difference in interval size accounting for absolute differences in number of residents registered to vote in each Census ward. This sampling frame excludes adults under the age of 18 years and those individuals who did not qualify to vote because of no

[4] 12 points being the lowest common denominator of values for each variable.

Table 2.5: Total Sample Profile

	All respondents % (N=400)
Gender:	
Male	42.8
Female	57.2
Age:	
18-24 yrs	10.3
25-34 yrs	19.0
35-44 yrs	26.3
45-54 yrs	18.3
55-64 yrs	14.3
65 and over	12.1
Marital Status:	
Married/cohabiting	71.2
Single	28.8
Household Type:	
Living alone	9.5
Single & living in shared accommodation	14.8
Living with partner	12.8
Have dependent children under 7 yrs	**15.3**
Have dependent children 7 yrs and over	**16.5**
Have non-dependent children living at home	6.5
Have children who have left home	24.8
Household Income:	
Up to £7,499	12.0
£7,500 - £14,999	16.8
£15,000 - £24,999	25.8
£25,000 - £34,999	22.3
£35,000 - £49,999	12.5
£50,000 and over	5.3
Social Class (OPCS Occupation classification 1991)	
I	15.0
II	37.8
IIIn	28.0
others *	11.4
students	7.8
Self-graded Social Class:	
Upper middle class	16.3
Lower middle class	50.8
Working class	28.5
Refused to answer	4.5
Education:	
Higher degree	7.8
Professional Qualifications	11.8
First Degree	18.3
Higher Education below degree	36.5
GCSE or equivalent	14.3
None	11.5
Middle-class composite index	
Upper quartile	24.0
Upper middle quartile	26.0
Lower middle quartile	25.0
Lower quartile	25.0

* Other includes those respondents who were either unemployed or housewives who normally worked in social class I, II or IIIn occupation and/or the respondents whose partners work in social class I, II or IIIn occupations. As such the household was classified as middle-class.

Table 2.5 continued..... Total Sample Profile

	All respondents % (N=400)
Father's occupation at age 10 years old **	
I	17.8
II	27.8
IIIn ***	26.0
IIIm	8.3
IV	12.5
V	5.3
other	2.5
Car Ownership:	
None	21.2
One car	52.5
Two or more cars	26.3

* *Father's occupation classification was based on occupation classification indexes relevant to their working lifetime. As such father's occupation was coded from the 1981 Standard Occupational classification if respondents were 25 years-34 years old; the 1961 classification if respondents were aged between 45-64 years old; and the 1931 classification if respondents were 65 years or over. These three time periods coincide with significant changes in emphasis in the classification systems of 1911-21, 1951-61 and 1971-81 (Boston 1984). **See Figure 2.2** [5]

*** In 1971 group III was subdivided into manual and non-manual occupations to reflect significant structural changes in the British working population (i.e. increase in white collar occupations) and to make the occupational classifications comparable with those used by the Department of Employment
Those fathers who were classified on the 1961 or 1931 classification have been included in the IIIn occupational group.

fixed abode, voluntary abstainment or house re-location when the register was compiled in October 1994. Exclusion because of no fixed abode was seen to be less likely in the middle-class basis of the sample taken. This study, as such, is restricted to an examination of middle-class residents aged eighteen years and over.

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[5] **Figure 2.2: Social grade as a measure of purchasing propensity & culture.**

The five occupational groups that we know today were introduced in 1921 and were designed to capture individuals' wealth and culture (culture being equated with knowledge and skill that allows a person to use his purchasing power wisely). Occupations were grouped according to the degree of skill involved and the social position of the occupation. However more weight was given to the occupation's social position which was considered a more discriminating a measure:

"culture is more easily estimated, as between occupation, than wealth, so the occupational basis of social grading has a wholesome tendency to emphases it " (Boston 1984 p 38).

In the 1921 occupational classification, 3 additional groups, textile workers miners and agricultural workers were kept separate because one of the focuses of the classification was mortality and these sub-groups were considered sufficiently important to be identified separately. At this time the second purpose of the occupational classification was in fertility and whether, in particular, whether the upper and middle classes were "reproducing themselves" (Boston 1984). Pre 1921 the classification was industry rather than occupation in focus (Nissel 1987 p 68-74).

The systematic sampling method employed can be particularly problematic when the sampling frame is not completely random and suffers from some underlying order effect (McDaniel and Gates 1996, Alreck and Settle 1995). Ordering effects based on gender, which can be anticipated in the electoral register, did not appear to have affected the composition of the samples taken in either ward (see Table 2.5 and Tables 2.6).

A personalised postcard (see appendix 1) was sent to each sampling unit (person), identified from the electoral ward registers, requesting their participation in a general leisure study and detailing how and from where the person's name had been selected, the time and other requirements of the interview and a contact telephone number for queries. A small minority of respondents did phone to clarify details or check the authenticity of the study. The interview schedule was drawn up after further telephone contact with respondents, where telephone numbers could be obtained. Where telephone numbers were not available up to 10 personal calls were made to secure an interview from the respondent. Together these measures secured an overall response rate of 89%, excluding those sample units that did not qualify as middle class. In Tollcross more sample units did not qualify as middle class. Further the response rate in Tollcross (79%, n= 42 non-responses) was lower than in N E Corstorphine (97%, n= 6 non-responses) due to the more transient population base in the inner-urban ward.

2.2.4 The Sample

The final sample was confirmed as middle-class. Table 2.5 shows that 65.9% of respondents enjoyed a household income in excess of £15,000, with 40.1% of respondents earning in excess of £25,000; 67.1% of respondents grading themselves as belonging to the middle-class of the social strata; 37.8% of respondents were currently employed in social class II occupations; 80.8% of respondents were from social grade I, II or 3n occupation; and 74.2% of respondents educated to higher education level or above. Further, 71.6% of respondents

had grown up in middle-class families. The other 28.4% of respondents represented those individuals whose socialisation was more manual-working-class in orientation but, through democratisation of education and employment opportunities witnessed this decade, these individuals are now classified as middle class. It is of interest that 31.9% of respondents felt they belonged to the working classes, although by objective measures of household occupations, these respondents were classified as middle class. This may reflect social-demographic changes brought about from political and economic changes since the end of the World Wars. Overall Table 2.5 shows that this study has sampled the middle-class, and further, by sampling at the upper and lower quartile ranges of the index of social advantage to deprivation derived from Census data, a substantial cross-section of middle-classes were interviewed.

Comparing the sample to population statistics from the 1991 Census statistics for the city of Edinburgh, the present sample was found to have a slight gender bias in favour of females (57.2% compared to 53.0% for Edinburgh generally), contain more households with children (31.8%, compared to 22.3% for Edinburgh generally), over represent the 26-34 year and 45-64 year age group (26.3% compared to 16.7% for 26-34 year olds and 32.6% compared to 22.4% for 45-64 year olds), while the present sample was found to under-represent the 18-24 year age group (10.3% compared to 16% in Edinburgh generally) and contain fewer respondents with no private transport (21.2% compared to 46.5% in Edinburgh generally).

For the present study, Table 2.6 illustrates how respondents in Tollcross and N.E. Corstorphine varied socio-demographically. Although, the spatial sub-samples did not vary in terms of gender or self-rated social class membership, as would be expected from the sampling design extremely significant differences (using a Two Sample Chi-Square test) at 0.001 and above were found for car ownership, household type, age, marital status, household income and respondents' education. A comparison of the Cramer's V coefficients identified car ownership (.56) and household type (.51) to be the strongest differences

Table 2.6: Comparisons of Socio-demographic Profile across Sampling Wards

	Tollcross	N.E. Corstorphine	Tollcross	N.E. Corstorphine
	% n=200	% n=200	Census 1991 % N= 5908	Census 1991 % N = 7863
Household Income:				
Up to £7, 499	20.4	4.8		
£7,500 - £14,999	18.8	16.6		
£15,000 - £24,999	28.8	25.7		
£25,000 - £34,999	17.3	29.9		
£35,000 - £49, 999	11.5	15.0		
£50, 000 and over	3.1	8.0		
Chi-sq statistic = 20.081				
df = 5				
significance = .000				
Cramer's V = .28				
Social Class				
(OPCS Occupation classification 1991)			*	*
I	13.0	17.0	12.5	8.6
II	40.0	35.5	36.0	26.5
IIIn	26.5	29.5	22.5	35.6
IIIm	2.5	1.0	10.9	17.7
IV	1.5	2.5	7.7	10.4
V	2.0	5.0	3.8	8.9
housewife	11.5	5.5	55.3	22.4 (other)**
students	3.0	4.0	(other)**	
Chi-sq statistic = 15.010				
df = 7				
significance = .04				
Cramer's V = .19				
Self-graded Social Class:	(n=196 because of refusals to answer question)	(n=186 because of refusal to answer question)		
Upper middle class	17.3	16.6		
Lower middle class	50.0	56.5		
Working class	32.6	26.9		
Education:				
Higher degree	10.0	13.0		
Professional Qualifications	8.5	20.0		
First Degree	35.0	38.0		
Higher Education below degree	22.5	14.0		
GCSE or equivalent	13.0	10.5		
None	11.0	4.5		
Chi-sq statistic =19.705				
df =5				
significance = .001				
Cramer's V = .23				
Middle-class composite index				
Upper quartile	24.0	26.0		
Upper middle quartile	23.0	27.0		
Lower middle quartile	27.5	23.0		
Lower quartile	25.5	24.0		

Table 2.6 continued: Comparisons of Socio-demographic Profile across Sampling Wards

	Tollcross	N.E. Corstorphine	Tollcross	N.E. Corstorphine
	% n=200	% n=200	Census 1991 % N= 5908	Census 1991% N = 7863
Father's occupation at age 10 years old **				
I	19.0	16.5		
II	31.5	24.0		
IIIn ***	26.0	26.0		
IIIm	6.0	10.5		
IV	9.5	15.5		
V	6.0	4.5		
other - **no father**	2.0	3.0		
Age:				
16-24 yrs	15.0	5.5	23.0	13.5
25-34 yrs	28.0	10.0	27.9	14.5
35-44 yrs	29.5	23.0	14.3	15.1
45-54 yrs	10.5	26.0		
55-64 yrs	7.0	21.5	14.7	31.8
65-74 yrs	6.0	12.5	9.8	17.5
75 and over	4.0	1.5	10.3	7.6
Chi-sq statistic between sample wards = 62.226				
df = 6				
significance = .000				
Cramer's V = .39				
Marital Status:				
Married/cohabiting	54.0	88.5	62.5	72.4
Single	46.0	11.5	37.5	27.6
Chi-sq statistic = 58.105				
df = 1				
significance = .000				
Cramer's V = .38				
Household Type:				
Living alone	18.0	1.0		
Single & living shared commodation	18.5	1.5	No. households with children 12.4%	No. households with children 25.5%
Living with partner	19.0	6.5		
Have dependent children under 7	12.0	18.5		
Have dependent children 7+ yrs	11.0	22.0		
Non-dependent children at home	4.0	9.0		
Have children who have left home	14.0	35.5		
Living with parents	3.5	6.0		
Chi-sq statistic = 105.518				
df = 7				
significance = .000				
Cramer's V = .51				
Gender:				
Male	43.0	42.5	47.9	46.9
Female	57.0	57.5	52.1	53.1
Car Ownership:				
None	39.0	3.5	59.5	40.8
One car	55.5	49.5	34.1	41.3
Two or more cars	5.5	47.0	6.4	17.9
Chi-sq statistic =				
df = 2				
significance = .000				
Cramer's V = .56				

* based on 10% sample of 1991 Census

** other includes all those economically inactive plus armed forces

between the two wards. As might be expected, 91% of those respondents in the present study who did not own a car lived in Tollcross, an inner-urban location, whereas 89.5% of those owning two or more cars resided in N.E. Corstorphine, the suburban ward.

The presence of children in the family structure was the principal difference in terms of household type between the two areas: the majority of people who lived alone (94.7%), who were single people living in shared accommodation (92.5%), and who were married or cohabiting childless couples (74.5%) lived in Tollcross, whereas the majority of respondents with dependent children under 7 years (60.7%), dependent children seven years and over (66.7%), non-dependent children who lived at home (69.2%), children who have left home (71.1%), and respondents who lived with their parents (63.2%), come from N.E. Corstorphine. Such family-life cycle differences are reflected in the contrasting age profiles of the two wards, (significant at above 0.001 and with a Cramer's V of 0.39): Tollcross had predominantly a younger residential base, with 73.2% of 16-24 year olds and 73.7% of 25-34 year olds coming from this area, and N.E. Corstorphine had a predominantly older residential base, with 71.2% of 45-54 year olds, 75.4% of 55-64 year olds and 67.6% of 65-74 year olds living in this area. As would be expected from these strong differences in family-life cycle and age, strong differences were also found in the martial composition of the two wards; the majority of married respondents (62.1%) were found to live in N.E. Corstorphine and the majority of single respondents (80%) lived in Tollcross.

Household incomes and the education of respondents were found to vary across the two locations, and although highly significant at $p<.000$ and $p=.001$ respectively, these differences are comparatively weaker than those already identified. In terms of lower household income, the majority of respondents with a household income of below £15,000 lived in Tollcross, whereas 62.9% of respondents with household incomes of £25,000-£34,999 and 60.6% of respondents with incomes of £35,000 and above lived in N.E. Corstorphine. The higher proportion of married and cohabiting couples in N.E. Corstorphine accounted for at least some of these households' income differences identified.

Educational differences, although the weakest of socio-demographic variations between the wards, were important as the majority (61.6%) of respondents educated to degree level and above lived in Tollcross, whilst the majority (56.5%) of respondents with no education equal or beyond GCSE level lived in N.E. Corstorphine. Most respondents (58%) from N.E. Corstorphine who held qualifications at GCSE or above were educated below degree level. Both Edinburgh University and Napier University are proximal to Tollcross and this probably accounted for the disproportionate number of highly educated individuals living in this area.

2.2.5 Museum Interview Stimulus

The previous chapter noted the increase in studies, over the past decade, which have attempted to broaden our understanding of the consumption of heritage attractions. However, a weakness common to the majority of these studies is that they are attraction specific and thereby limit a more generic understanding of museum behaviour useful for understanding consumption across different attraction types (Prentice et al 1997). Exceptions include: Merriman (1991), who based on a generic museum image determined the demographic composition of museum visitors nationally in the UK and the alternative means by which visitors and non-visitors appropriate heritage; and Prentice et al (1997), who determined the reasons for visiting and not visiting across generic images of museums, theatre and industrial attractions. Further, museum and heritage studies to date have not sought to examine the extent to which consumption varies by the manner in which the heritage is presented or by the geographic location of these sites (Richards 1996). Exceptions include Prentice (1993 and 1997) where changes in interpretative media at sites have been tested for learning effects in visitors using a knowledge quiz.

To reflect the diversity of museum exhibition style currently believed to exist and described previously as the *New* and *Old Museologies*, idea *(concept)* or *object-based* museums, *immersive* or *traditional* in style (see Chapter 1, section 1.1.3), two contrasting collages of

social history museum images were employed as visual stimuli and can be seen as 'stereotypes' currently available which vary along Dean's (1994) *Exhibition Content Scale.* This approach is similar to scenario building (East 1996) and responds to calls for *'at least realistic'* product samples in studying experiential consumption (Holbrook and Hirschman 1982). As such this approach attempts to overcome and limit the inadequacy of traditional verbal stimuli associated with conjoint analysis and multi-dimensional scaling which have been particularly criticised for not being able to capture non-verbal cues (Holbrook and Hirschman 1982).

Elsewhere in environmental psychology studies there has been a long tradition for the use of visual stimuli as surrogates for the "real environment" (see Kaplan and Kaplan 1989, or Ulrich 1977 for a review), and more recently such approaches have been adopted in tourism (MacKay and Fesenmaier 1997) and consumer behaviour (Holbrook and Schindler 1994). Kaplan and Kaplan (1989) have stressed the general acceptance and superiority of visual stimuli over verbally locating the stimulus or giving no defined stimuli. This study acknowledged that visual stimuli cannot be the same as 'being there' because other non-visual sense modalities were not being directly stimulated. In addition, more information would have been provided in real environments than can be provided in photographs. However, as most individuals have had some experience of museums, even if this was in childhood, pictorial stimuli were not considered a disadvantage in representing the museums and it was hoped that the pictorial stimuli would indirectly stimulate non-visual modalities through memory. It is these recollections that respondents would use to interpret or *'bring alive'* the stimulus. This seemed a valid approach as it is on these recollections that respondents currently base perceptions of museums and current visiting preferences. As such, it was expected that recollections could be multi-sensory and three-dimensional.

In each of the two electoral wards, the samples (n=200, n=200) were divided into those exposed to the 'idea' based museum and those exposed to the 'object' based museum

pictorial stimuli. The selection of collages administered was random within each ward and for each museum style 200 respondents completed the quantitative schedule.

Table 2.7 shows that the museum sub-samples were equivalent in terms of socio-demographic characteristics and residential proximity to the city centre, with the exception of the composite middle class index, where the majority (65.7%) of those people in the lower quartile of the index were in the object-based museum sub-sample, while 60.0% of those respondents in the upper-middle quartile were in the idea-based sub-sample. The middle class index is made up of social class, income, education and socialisation factors and in subsequent analyses where differences are observed between the two museum sub-samples and the results purported to demonstrate the effect of the interpretative environment, some caution in assessing the extent of divergence or similarity will be necessary where it is found that class, education or socialisation have an affect on the experience variables observed.

For example, museum visiting has been found to be socially selective (see for example Prentice 1993a) with a disproportional number of visitors coming from the professional and higher managerial social grade. Many commentators have suggested that this bias in the visiting profile to museums and other cultural attractions is due to these social groups having the 'cultural capital', a form of social distinction, which provides the basic competencies to interpret and consume museum experiences (Bourdieu 1984, Richard 1996, Merriman 1991).

The *New Museology,* associated with the idea-based museums, is believed to overcome cultural capital effects in visiting composition. That the object-based museum contains more respondents from the lower quartile of the middle class index suggests the differences observed between the two museums in terms of expectations regarding the visit's experiences may be slightly exaggerated. Overall, however, Table 2.7 confirms that each

Table 2.7: Effect of Socio-demographics on Museum Style Sub-Samples

	Idea-based Museum % n=200	Object-Based Museum % n=200
Residential Location		
Tollcross	50.0	50.0
N.E Corstorphine	50.0	50.0
Household Income:		
Up to £7, 499	14.7	10.7
£5500 - £14,999	17.3	18.2
£15,000 - £24,999	27.2	27.3
£25,000 - £34,999	23.6	23.5
£35,000 - £49, 999	14.7	11.8
£50, 000 and over	2.6	8.6
Social Class		
(OPCS Occupation classification 1991)		
I	12.5	17.5
II	37.5	38.0
IIIn	30.5	25.5
IIIm	1.5	2.0
IV	2.5	1.5
V	3.5	3.5
housewife	5.0	3.5
students	7.0	8.5
Self-graded Social Class:		
Upper middle class	14.3	19.7
Lower middle class	52.9	53.4
Working class	32.8	26.9
Education:		
Higher degree	5.0	10.5
Professional Qualifications	9.5	14.0
First Degree	17.5	19.0
Higher Education below degree	40.0	33.0
GCSE or equivalent	17.5	11.0
None	10.5	12.5
Middle-class composite index		
Upper quartile	26.5	23.5
Upper middle quartile	30.0	20.0
Lower middle quartile	26.5	24.0
Lower quartile	17.0	32.5
Chi-sq statistic =14.315		
df =3		
significance =.003		
Cramer's V =.189		
Father's occupation at age 10 years old **		
I	16.0	19.5
II	26.0	29.5
IIIn ***	30.0	22.0
IIIm	5.0	11.5
IV	15.0	10.0
V	5.0	5.5
other –(no father)	3.0	2.0

Table 2.7 continued: Effect of Socio-demographics on Museum Style Sub-Samples

	Idea-based Museum % n=200	Object-Based Museum % n=200
Age:		
16-24 yrs	10.5	10.0
25-34 yrs	20.0	18.0
35-44 yrs	26.0	26.5
45-54 yrs	15.5	21.0
55-64 yrs	15.0	13.5
65-74 yrs	9.0	9.5
75 and over	4.0	1.5
Marital Status:		
Married/cohabiting	73.5	69.0
Single	26.5	31.0
Household Type:		
Living alone	8.5	10.5
Single & living in shared accommodation	9.5	10.5
Living with partner	12.5	13.0
Have dependent children under 7 yrs	17.5	13.0
Have dependent children 7 yrs and over	18.5	14.5
Have non-dependent children living at home	3.0	10.0
Have children who have left home	25.5	24.0
Living with parents	5.0	4.5
Gender:		
Male	43.5	42.0
Female	56.5	58.0
Car Ownership:		
None	23.0	19.5
One car	48.0	57.0
Two cars	24.5	20.5
Three of more cars	4.5	3.0

museum sub-sample is equivalent in terms of other socio-demography and spatial relationship within the city of Edinburgh, making direct comparisons between the museum sub-samples in subsequent analyses valid. As such, the differences between the sub-samples in terms of the middle-class index may be a product of the crudeness and computational assumptions of this index.

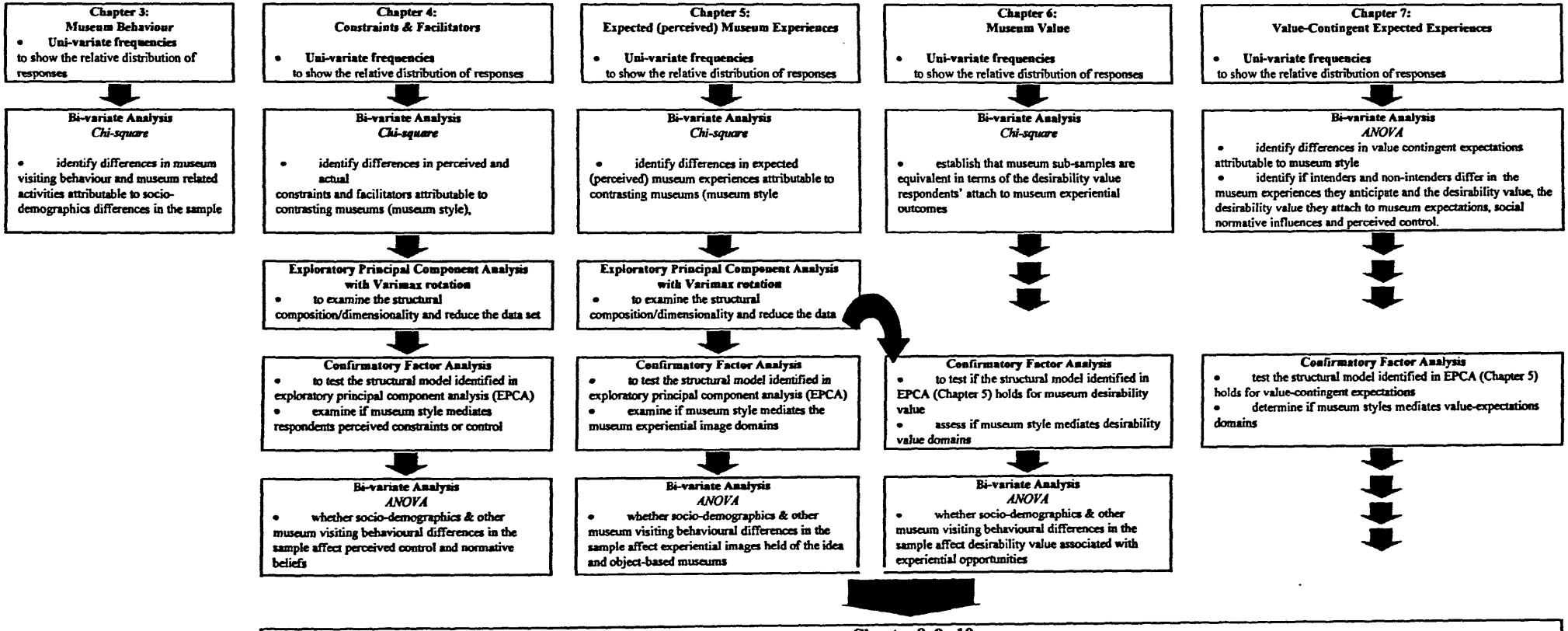
2.3 Data Analyses

Figure 2.3 details the stages of analysis undertaken to address objectives and test hypotheses of the present study. The analysis was conducted using SPSS for Windows 95 and 97, versions 6.1.2 and 8.0.

2.3.1 Uni-variate and Bi-variate Analyses

In chapters 3, 4 5 and 6 uni-variate frequency analyses are used to demonstrate the relative distribution of responses in the sample. These are followed by bivariate Chi-square analyses which sought to test for: differences in museum visiting behaviours (chapter 3); constraints and facilitators that impact museum visiting (chapter 4); perceptions of museum experiences gained or museum images (chapter 5); and the value of museum experiences held by respondents (chapter 6) attributable to the different the museum styles employed in this study (idea-based and object based museum), socio-demographics (including location) and museum related behaviour (frequency of visiting, interest in heritage visits and heritage related past-times). Respectively, these analyses identify the potential 'causes' of museum visiting behaviour, constraints, experiences anticipated in visiting, and the value of museum experiences. As Chi-square is only capable of identifying differences, the strength of differences observed were examined using Cramer's V. The latter, by allowing for table dimensions (i.e. differences in the number of cells in a table) as well as sample size, enables comparison to be made between the different associations identified. Where significant differences were observed ($p<0.05$), the Chi-square statistic, significance level and Cramer's V coefficient are shown in tables and in the general text. The level of significance is given to three decimal places consistent with the analysis output given in SPSS for Windows 95 version 6.1.2. Where significant differences were not identified, "-" identifies non-significance.

Figure 2.3: Principal Phases in Quantitative Analyses



Note: ⟲ represents where the exploratory principal components derived on expected museum experiences are tested for on desirability value and value-contingent expectations

Where bi-variate analyses with summated composite scores are undertaken, analysis of variance was chosen. Analysis of variance was used to test for group differences. Analysis of variance (ANOVA) is appropriate for identifying if groups, measured at a nominal or ordinal level (e.g. socio-demographic groups), differ in terms of their means score for a variable measured at interval or ratio level (e.g. summated score on constraint-control domains) (Diamantopolous and Schlegelmilch 1997). ANOVAs were used to examined if there were sub-groups of respondents in the present sample that differed in their reaction to constraint-control (Chapter 4), anticipated experiential outcomes (Chapter 5) and value domains (Chapter 6), as measured using a summated composite of manifest variables.

2.3.2 Multivariate Analyses

In the present study several multivariate techniques were employed. Exploratory principal component analysis was used to examine the relationships between observed measures of constraints and anticipated experiences. The findings of these exploratory principal component analyses were subsequently verified using confirmatory factor analysis and were then employed as the measurement models in the simultaneous analysis of several structural equations with latent variables. The latter analysis was used to test the validity of the Theory of Planned Behaviour in the study of experiential products and museum visiting behaviour in particular.

2.3.2.1 Exploratory Principal Component Factor Analyses

Exploratory principal component analysis (EPCA) was used as a preliminary analysis of dimensionality to determine both the potential dimensionality in the data and as a data reduction technique to reduce multi-collinearity. Exploratory principal component analyses (EPCA) is recommended by Bagozzi (1983) and Briggs and Cheek (1984) for use as a

preliminary analysis of dimensionality in a data set and to discover whether underlying or latent higher-order constructs can be identified. By simplifying the data set, EPCA is able to identify measures of the same underlying concept that can later be employed in a multi-measurement modelling approach (Churchill 1979).

Multivariate principal component analyses with Varimax rotation, as appropriate for parametric data, was used in chapters 4 and 5 as an exploratory tool in order to identify the relationships between constraints (Chapter 4) and anticipated experiences (images) (Chapter 5) measured in the present study. As such, EPCA assessed the structural nature of museum constraints and anticipated experiences in terms of whether these were multi-dimensional. Furthermore, principal component analyses served as a data reduction mechanism for input into modelling visiting propensity (Chapters 8 and 9) by providing a more parsimonious explanation of variable inter-relationships. In addition, the principal components identified for museum anticipated experiences (images, Chapter 5) were examined to determine whether they could be replicated, or were reflected, in terms of the museum desirability value (Chapter 6) and value-contingent experiences (Chapter 7), and so as to reflect elicitation procedures associated with Fishbein and Ajzen (1975) expectancy-value studies (Chapter 6 provides a thorough rationale for this approach).

Unless the dimensionality of the scale is known a priori, which was not the case in the present study, Churchill (1979) makes a strong argument for taking a measure of internal consistency as the first step in assessing the quality (i.e. dimensionality) of a data set. Churchill suggests that item pools (i.e. the set of 21 constraints measures and the set of 42 anticipated experiences in the present study) which are found to have high Cronbach Alpha coefficients (Alpha > 0.8) have good internal consistency and as such can be treated as uni-dimensional. Churchill was suggesting, as such, that there is no need to test the hypothesis

of multi-dimensionality through the application of principal components or other techniques and the data set should be accepted as uni-dimensional.

Bohlen, Schlegelmilch and Diamantopoulos (1993), among others, have argued however that Churchill's conclusions are only relevant when a priori that the scale is uni-dimensional. In direct contrast to Churchill they advocate the use of preliminary factor analysis to establish possible dimensionality. Spector (1992) similarly draws attention to the fact that the internal consistency of a pool of items may be high if two measures are distinct but correlated, and advises exploratory factor analysis on supposedly unidimensional or multi-dimensional constructs before calculating the Cronbach Alpha as a measure of internal consistency.

Elsewhere, Cronbach Alpha has not been found to be a pure measure of homogeneity (Briggs and Cheek 1983) and has also been shown to be a function of both the inter-item correlations and the length of the scale. This means that Cronbach's Alpha estimate of reliability can be improved by adding measures as well as selecting items that are more cohesive. Nunnally (1978) highlighted this problem with internal consistency measures, including Cronbach Alpha, explaining that it was *'not so much that the item to total analysis will fail when there are several prominent factors, but rather that item-to total analysis will work exceedingly well'*. Further, Briggs and Cheek (1983) demonstrated that item to total correlations work well when several groups of items relate strongly to different factors as well as when items relate moderately to the same factor. They found, for example, that a scale can have good internal consistency as measured by Cronbach's Alpha, homogeneity as measured by inter-item correlations, and yet be multi-factorial. Together these studies support the use of exploratory analysis to assess dimensionality before undertaking scale purification and assessing scale reliability assessment. The present study, in common with other studies in leisure, tourism and consumer behaviour (for example, McGoldrick and

Pieros 1998, Crompton and McKay 1997, Otto and Ritchie 1996, Tian et al 1996, Babin et al 1994, Bohlen, Schlegelmilch and Diamantopoulos 1993), conducted exploratory principal component analysis before assessing scale reliability.

a) Background to Principal Component Analysis

Principal component analysis (PCA) is an interdependence factor analysis technique that looks for systematic interdependence among a set of observed variables. The central proposition of PCA is that something beyond the observed variables, that is, something more fundamental or latent is operative and is creating the communality (Sheth 1971).

Principal components analysis has been popular in both leisure and marketing studies (for example, Crompton and McKay 1997, Otto and Ritchie 1996, Tian et al 1996), but stands as only one model or method of extraction available from the family of interdependence factor analysis techniques. In PCA the total variance, which includes common, unique and error variance in the data, is considered. This is in contrast to a common factor extraction model where only common variance plus error are considered. As a model of extraction, PCA is appropriate when the principal objective is to use the latent constructs identified for predication or subsequent modelling (Bagozzi 1983, Hair et al 1995). PCA seeks to determine the minimum number of dimensions (factors) needed to account for the maximum proportion of variance represented in the observed variables. PCA assumes that the unique and error variance represent relatively small proportions of the total variance in the data and as such it is recommended for use on data which are known to have small amounts of error and unique variance (Bagozzi 1983). Although this was not the case in the present study due to its exploratory nature, it was decided to use PCA over common factor models in order to retain consistency with past studies. As such, PCA is only appropriately used as

an exploratory device in the present study that would later be more rigorously tested using structural equation modelling (SEM).

b) Rotation of Initial Principal Component Solution

Varimax rotation was employed in all PCA analyses. Varimax rotation is an orthogonal extraction method in which factor axes are rotated around the origin and the reference axes are maintained at ninety degrees. This rotation method simplifies the factor structure thereby improving the interpretation of the latent dimensions by removing the ambiguities which are found to be problematic in unrotated solutions (Mitchell 1993). In particular, orthogonal rotation results in principal components that are independent of all other factors, which, it has been suggested, is desirable when factor results are to be employed in subsequent analyses as this rotation eliminates collinearity (Hair et al 1995).

c) Operationalising Exploratory Principal Component Analyses

i) Appropriateness of the Data For Principal Component Analyses

Before PCA was conducted, the data were examined for their appropriateness for principal component analyses. The correlation matrix was examined for small coefficients (less than 0.30) and Bartlett's test of sphericity and the Kaiser-Meyer-Olkin measure of sampling adequacy were conducted. Bartlett's test of sphericity tests the hypothesis that the correlation matrix came from a population of variables that are independent. In all principal component analyses the hypothesis of independence was rejected at $p<.000$. This highly significant result implies the appropriateness of the data for PCA. However, Knapp and Sowyer (1967) and Mitchell (1993) have noted that for sample sizes of greater than 200, variables equal to 10 and a significance level of .05, the hypothesis of independence is

certain to be rejected even when correlations among the variables are as low as .09. As such, the Kaiser-Meyer-Olkin measure of sampling adequacy, held by Stewart (1981) to be the best test of the appropriateness of the data for PCA, was also used to assess the extent to which variables belong together. Kaiser and Rice (1974) suggested that a Kaiser-Meyer-Olkin measure of sampling adequacy of above .9 suggests the data is 'marvellous', above .8 suggests the data is 'meritorious' and above .7 suggests the data is 'middling'. In all analyses Kaiser-Meyer-Olkin test of sampling adequacy was rated at meritorious to marvellous.

Sample size in relation to the number of observed variables determines the robustness of the principal component solution. In all factor analyses a sample size of more than 100 is preferred, and generally a ratio of 4 or 5 respondents to variables is advised (Hair al 1995). In all PCAs this ratio of cases to variables was satisfied or exceeded.

ii) Choosing the Number of Factor Components to Extract

There is much debate over the most appropriate criteria to be used in determining the number of factors to be extracted in principal component analyses. It is generally agreed, however, that the criterion of an eigenvalue of greater than 1 and the scree test plot are the most appropriate criteria in the social sciences (Hair et 1995, Mitchell 1993). Both the eigenvalue of > 1 and the scree test plot formed the initial and principal means of deciding the number of factors to retain in the analyses.

A latent dimension that has an eigenvalue of one or more accounts for at least the variance of one original or observed variable. The eigenvalue of >1 criterion has been found to be most reliable when there are between 20 and 50 variables. When there are more than 50 variables too many principal components may be extracted, whilst with less than 20

variables a conservative (i.e. less than optimal to explain the variance) number of dimensions with an eigenvalue over one will be identified (Mitchell 1993). All PCAs in the present study contained between 21 and 42 variables and as such the eigenvalue of >1 was deemed to be a suitable method for choosing the number of component dimensions to extract. However, for an examination of the four social normative beliefs (see Chapter 4), a PCA solution with an eigenvalue of less than one was examined so as to eliminate the possibility that too few dimensions were identified and retained as a result of the small number of variables (n=4) contained within this analysis.

It must also be remembered, however, that the amount of unique variance increases when an increasing number of factors are extracted. The scree plot aims to identify the number of factors that can be extracted before the amount of unique variance begins to dominate the common variance structure, and as such serves as an additional criterion in choosing the number of factors to be extracted (Mitchell 1993, Cattell 1966). The scree test plots the eigenvalues against the number of factors, and produces a downward sloping curve. The optimal cut of point is where the curve begins to straighten in tail effect. Both the eigenvalue > 1 criteria and the scree plot test were used to determine the number of factors extracted.

Harman (1967) suggested an additional rule for choosing the number of factors to be extracted: PCA solutions, she suggested, should include all those dimensions that are needed to explain 60% of the variance in the data. This was achieved in all PCA analyses in the present study and a more technical discussion of the rationale for this criterion can be found in Harman (1967). Hair et al (1995) have also commented that once an initial solution has been chosen using the eigenvalue or other criteria, additional trail solutions two or three factors above and below should be examined, and the factor matrix with the best

interpretation should be retained. Briggs and Cheek (1983) noted the popularity of this approach, and this additional method was adopted in the present study to verify that the most interpretable number of principal components had been extracted.

iii) Scale Development and Refinement

In terms of both scale development and psychometric analysis of measurement instruments, the approaches of Churchill (1979) and Nunnally (1978) have been widely accepted and followed. Several measures were used to assess the principal components extracted. Firstly, measures of internal consistency, the most popular of which is Cronbach's Alpha, were used to assess the internal consistency and identify irrelevant items that did not share common variance. Cronbach 's Alpha reliability coefficient was taken for each of the sub-dimensions identified from the exploratory principal component analysis. Components with an Alpha reliability of .7 or above have been deemed to have acceptable internal consistency (Churchill 1979), although the less conservative measure of .6 has been suggested by Nunnally (1978) as appropriate for exploratory studies. Where a component did not reach the acceptable .7 criteria, the Cronbach Alpha was repeatedly taken to assess whether any improvement could be gained by deleting a variable from the component. Where significant improvements could be gained the item was deleted. In addition, individual variables with corrected item-to-total correlations of below .5 were deleted as suggested by Briggs and Cheek (1983), although it is recognised that Steenkamp and van Trijp (1991) have suggested a more conservative level of .6 and Manfredo et al (1996) have employed a less conservative level of .4. Together, these three tests (alpha coefficient, alpha coefficient if the item was deleted, and the corrected item-to-total correlations) were used to assess if the internal consistency of the component could be improved.

Briggs and Cheek (1983) advised that in order to overcome the problems associated with Cronbach Alpha being dependent on scale length, the mean inter-item correlations should be

used as a better estimate of internal consistency and homogeneity. This represented a further assessment of the component scales and mean inter-item correlations were examined to assess whether the dimension achieved the optimal mean inter-item correlations of .2 to .4. Briggs and Cheek (1983) suggested that mean inter-item correlations higher than .5 indicate that items on the scale are overly redundant and the construct is being measured too specifically, whereas, if mean inter-item correlations are found to be less than .1 it is unlikely that a single total score adequately represents the complexity of the dimension.

2.3.2.2 Confirmatory Factor Analysis (CFA) and Structural Equation Modelling (SEM)

Structural equation modelling (SEM) is also known as covariance path analysis with latent variables, or colloquially and in marketing studies, as LISREL analysis (Hair et al 1995). The differences between structural equation modelling and other multivariate techniques, and therefore the advantage of using SEM, include:

1) SEM estimates a series of separate but interdependent multiple regression equations simultaneously by specifying a structural model;

2) SEM can incorporate latent variables into the analysis; and

3) by incorporating latent variables, SEM takes account of measurement error in the observed variables which is known to affect the reliability of regression parameters.

In 1996, AMOS version 3.6 (Arbuckle 1997) replaced LISREL 7 (Jöreskog and Sörbom 1988) as the SEM package associated with SPSS. All CFA and SEM analyses were conducted using the AMOS package. AMOS and LISREL are equivalent in terms of the regression estimating methods available and the different types of analyses that can be undertaken. One advantage of AMOS over LISREL is the superior graphical output available to summarise the analyses.

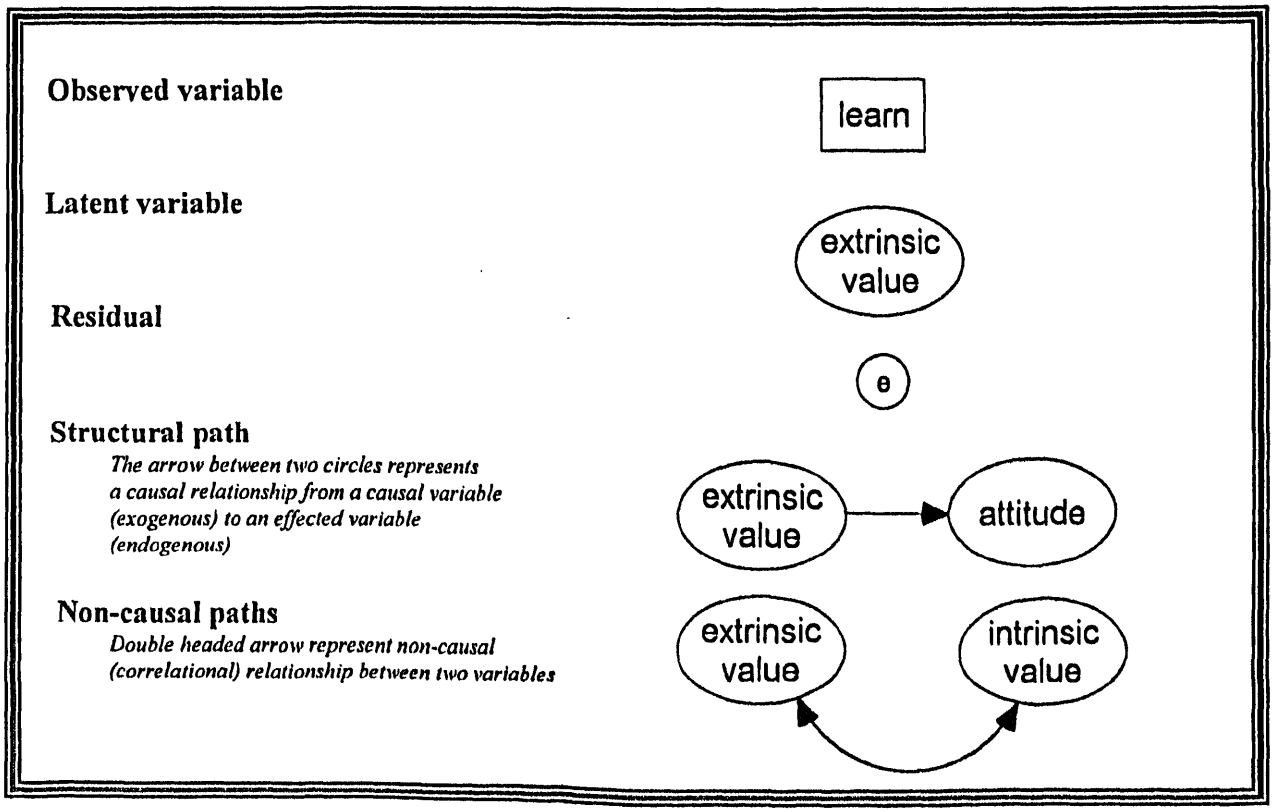
Full structural equation modelling consists of a *measurement model* and a *structural model.* Model building and full structural equation modelling can be conceptualised as 2 distinct tasks, the building and verification of a measurement model and a structural model (Anderson and Gerbing 1988). The *measurement model* is focused on the links between a latent (unobserved) variable and its observed (manifest) variable(s). In measurement models the observed (manifest) variables are the dependent variables while the latent (unobserved) variables are independent variables. CFA forms the basis of the measurement model used in SEM analysis, and is concerned with the reliability of the unobserved latent variables. At the same time the measurement model is used to assess the contribution of each scale (component) item, while correcting for measurement error. CFA analysis in the present study serves to test the factor structure derived from exploratory principal component analyses, and serves as the measurement model(s) for examining sets of regression equations in chapters 8, 9 and 10.

The *structural model* in SEM analysis specifies a series of regression equations among latent variables in the measurement models. As such, full SEM with latent variables is concerned with the impact of one or more latent variable(s) on other latent variable(s). One principal advantage of structural equation modelling is that it allows the estimation of a series of separate but interdependent multiple regression equations simultaneously. In contrast, multiple regression allows only one regression equation to be tested at a time and as such, it has been the convention, for example in testing multi-attribute attitude or choice models, to test each sub-structure of a theoretical model independently (e.g. Ajzen and Driver 1991 &1992). Clearly such approach is flawed, as the interactive effects of different model components cannot be examined. Structural equation modelling overcomes this drawback by allowing for the entire model to be tested at one time. A second advantage of structural equation modelling with latent variables is the ability to identify and account for error in the measurement model. This ensures that parameter estimates are free from

measurement error, and as such SEM analysis gives more valid and reliable estimates of parameter values.

In both CFA and full SEM modelling conventional schematic presentation will be adopted, although LISREL notation will not be employed as this cannot be incorporated into the AMOS diagrams. A summary of this schematic presentation is given in Figure 2.4 below. Observed variables will be shown as rectangle boxes, latent variables as circles, structural regression coefficients as one-way arrows, and correlations as double headed curved lines. Regardless of whether a variable represents an observed variable, a latent variable or a residual, all variables which have a unidirectional arrow pointing towards them are seen as dependent (endogenous) variables. In contrast all variables which do not have a unidirectional arrow pointing towards them are seen as independent (exogenous) variables. Dependent variables are explained in terms of other variables in the model whereas independent variables serve as explanatory variables. Regression parameters (betas) and correlation (r) will be shown next to the respective paths.

Figure 2.4: Key to Schematic Presentation of SEM analysis using AMOS



a) Confirmatory Factor Analysis (CFA)

Bagozzi (1983) and Briggs and Cheek (1983) supported the usefulness of exploratory principal component analysis as a means of initially understanding the dimensionality of a construct, but highlighted problems both associated with it not accounting for error and there being no means to evaluate the overall fit of the model. These drawbacks, Bagozzi (1983) suggested, limit principal components to an exploratory descriptive heuristic for reducing large amounts of relatively errorless data. Both authors recommended the use of confirmatory factor analysis (CFA) using structural equation modelling (SEM) as a means of examining the appropriateness of derived exploratory PCA solutions. In fact, Bagozzi (1983) has suggested that different exploratory factor solutions (both principal component and common factor) can be tested using SEM methodology in order to determine which competing models best represent the data. The present study tested the latent dimensions derived from exploratory principal component techniques using structural equation modelling. The sample data used in confirmatory factor analysis as the same as that which has been used in exploratory principal component analyses, and further research is needed to verify if the structures confirmed in the present study transfer to different samples and different heritage contexts.

i) Background to CFA

Confirmatory factor analysis (CFA), unlike exploratory principal components analysis, is a hypothesis testing technique. CFA tests those particular linkages in a hypothesized model between the observed variables and their underlying latent dimensions actually exist in the sample data. CFA does this by testing for a *unique solution* where manifest observed variables are allowed to load on only one latent (unobserved) dimension and where loadings are restricted to zero on the remaining factor dimensions. In contrast, in exploratory

principal component or common factor analyses, all manifest variables load to some degree on all latent dimensions. This is not to say that principal components and common factor analyses have not been used as a confirmatory method: principal component analyses can be used as a confirmatory method if the factor structure derived on one sample is tested on another, or if factor scores are used from one analysis in a predictive model for another analysis (Bagozzi 1983). As such the difference between exploratory and confirmatory procedures can be considered a matter of degree (and for a fuller discussion of the difference between exploratory common and principal component analyses and confirmatory factor analyses see Bagozzi (1983), Byrne (1994) and Hair et al (1995).

In addition to testing for unique solutions, CFA using structural equation modelling has a number of advantages over confirmatory principal component and common factor models. CFA using structural equation methodology identifies and takes account of both random and measurement error to assess the reliability of the manifest (observed) as well as latent (unobserved) variables, and at the same time provides a series of goodness of fit measures for the models as a whole which are unavailable with traditional principal components and common factor analyses. As such CFA using structural equation methods is an appropriate measure for testing and refining measurement instruments (Steenkamp and van Trijp 1991) and has been employed in a wide range of marketing applications (e.g. Bitner and Hubbert 1994) and in consumer behaviour (e.g. Babin et al 1994), testing multi-attribute models (e.g. Bagozzi and Kimmel 1995), and to a limited extent more recently in leisure and tourism behaviour (Lindberg and Johnson 1997, Manfredo et al 1996, Madrigal 1995).

To summarise, in the present study confirmatory analysis with structural equation modelling acts as a second mechanism for reducing the large sets of observed variables, by confirming the factor structure derived in exploratory principal component techniques as well as by accounting for error and testing the reliability of the manifest variables. A two-stage CFA analysis was undertaken in the present study. First-order factor models were first tested

where all latent independent variables (factors) were specified to covary. Second-order factor models were tested as a second stage to CFA. In second order confirmatory factor models latent variables were not allowed to covary but were explained by a higher level factor(s). As such those factors tested in first-order factor analyses operate as dependent variables in the second-order CFA. Second-order factor(s) can be conceptualised as a global higher order factor(s), such as overall expectancy value, which serve to explain the variances in lower factors. Second-order factor models eliminate collinearity by imposing an orthogonal relationship between first (lower) order factors. For further discussion of the differences between first and second order factor models see Byrne (1994) and/or Bagozzi (1981&1982).

b) Operationalising CFA and Full Structural Equation Modelling: Model, Data and Sample Requirements

i) Data

Observed variables in the present study were measured on 7 point ordinal scales and as such were considered to be interpretable for the analysis as interval in nature (Hair et al 1995, Traylor 1983, Albaum 1977). Structural equation modelling requires multivariate normality, the absence of which has been found to substantially inflate the Chi-square statistic used to assess goodness of fit. Further, lack of multivariate normality creates upward bias in critical values for determining parameter coefficient significance (Hair et al 1995). Mardia's coefficient (1970, 1974) of multivariate kurtosis was used to determine if the data met the assumptions of multi-variate normality. In all analyses, except for the confirmatory factor analysis of constraint/control beliefs, multivariate normality was rejected at $p<.05$. For this reason, Asymptomatic Distribution Free estimation (ADF) was used in all analyses (see later discussion in sub-section b (iii) below).

For SEM the researcher has the choice of assessing the variances/covariances where parameter estimates are shown in terms of their original measurement scales, or the researcher can analyse the standardised variance/covariance matrix, i.e. the correlation matrix. The correlation matrix has been shown to provide more conservative estimates of the significance of coefficients than an analysis of the variance/covariances (Hair et al 1995). In contrast, the benefit of analysing the covariance matrix is that the researcher is able to make valid comparisons across populations. However, interpretation of the latter are more difficult as the coefficients must be interpreted in terms of the units of measurement for the construct.

In the present research, the focus of SEM was on the pattern of relationships *between* and *across* endogenous and exogenous variables (Hair et al 1995) rather than on the absolute magnitude of the coefficients. In other words, the research is focused on the relative magnitude of various parameters. This is because the absolute magnitude of parameter estimates, even after correcting for measurement error, are likely to be subject to specification error (the omission of variables), which cannot be ruled out in non-experimental social science and behavioural research. In exploratory studies where specification error may exist, Hair et al (1995) have advised to focus on the pattern of relationships between variables and use the correlation matrix (Hair et al 1995). Further, the analysis of the standardised correlations is consistent with other studies examining both multi-attribute models and confirmatory factor analysis (e.g. Giles and Cairns 1995, Bagozzi and Kimmel 1995, Dillon and Kumar1985, Bagozzi and Burnkrant 1985, Bagozzi and Heatherton 1994, Hull et al 1991, Burnkrant and Page 1988, Bagozzi 1983, Bagozzi 1981, Bagozzi and Burnkrant 1979).

Steenkamp and van Trijp (1991) have advised a further stage in scale purification, beyond corrected item to total correlations and exploratory factor analysis, should be undertaken prior to CFA to assess the uni-dimensionality of the construct. They have suggested that

the number of items on a construct (dimension) should be further reduced by selecting only high loading items. This has been found to make the use of CFA with structural equation modelling using packages such as LISREL 'more manageable' (Steenkamp and van Trijp 1991, Gerbing and Anderson 1988). Steenkamp and van Trijp (1991) employed a cut off point .7 and above (cf. Armour 1974). In the present studies, a cut off point of .65 was employed, as using a cut off of .7 seemed to reduce the conceptual meaning of dimensions extracted.

Steenkamp and van Trijp (1991) have stated that if an acceptable alpha reliability is achieved on the reduced set of items used to represent the construct dimension, this should be the point at which scale purification prior to CFA ends, as it is reasonable to conclude that the dimension or construct is reliable and unidimensional (Steenkamp and van Trijp 1991). Beyond this final refinement of the constructs measured, CFA using structural equation modelling is then used to test the hypothesised factor structure of museum expected experience, and the standardised residual errors can be used to identify where the hypothesised structure may be incorrect.

iii) Sample Size

Sample size is likely to effect both the sensitivity of the estimation method and Chi-square goodness of fit statistic (Bagozzi and Yi 1988). As such, too large a sample size increases the sensitivity of the Chi-square goodness of fit measure, making it likely that the researcher will reject models that fit the data well. On the other hand, too small a sample size will lead the researcher to accept models that do not fit the data well. The maximum likelihood estimation, which is popular in marketing, leisure studies and social psychology, has been found to increase in sensitivity towards detecting differences as the sample size increases from 100 (Hair et al 1995). In addition, the maximum likelihood method was not considered

appropriate for the present analysis as it has been found to be more sensitive to departures in multivariate normality than other estimation methods available (Hair et al 1995).

Hair et al (1995) and Hoelter (1983) propose 200 as a critical sample size for SEM. The sample size used in all analyses did not fall below the critical size of 200. It has also been suggested that a sample size large enough to accommodate the critical ratio of 5 observations to each estimated parameter was needed and employed in the present study to accommodate the assumptions of asymptotic statistical theory on which model estimation is based (Bentler 1985, Bagozzi and Yi 1988, Hair et al 1995) and this critical ratio was maintained in all analyses undertaken in the present study. Further, Bagozzi (1983) recommended that in addition to the above sample size considerations, the sample size minus the number of parameters to be estimated in the model should have an absolute value of no less 50. This requirement was satisfied during all the analyses undertaken.

iii) Estimating the Model

Generalised least squares has been found to be less sensitive to departures from multivariate normality but does become problematic as the model size and complexity increases whilst maximum likelihood has been found more likely to reject a model when the sample size increases above 100 (Hair et al 1995). The data, as stated earlier, were not found to have to be multivariately normal. For this reason, asymptomatic distribution free or ADF (Browne 1984) estimates were employed which do not require the multivariate normality assumption. ADF estimates correct for kurtosis. For further discussion the reader is directed to Browne (1984).

SEM requires that the model be *'identified'* or in fact *'over identified'*. Identification refers to the ability to generate unique estimates in the proposed model. As such, identification ensures that there is a separate and unique equation to estimate each coefficient in the

model. A model will not be unidentified if the number of coefficients to be estimated exceeds the number of input correlations. As such, identification requires a lower bound for degrees of freedom of zero, where degrees of freedom in the model refers to the number of non-redundant correlations in the input matrix minus the number of estimated coefficients in the model. Degrees of freedom refers to the number of pieces of information available to estimate the sampling distribution of the data after all model parameters have been estimated, and as such each estimated coefficient can be seen to "use up" a degree of freedom and in the model. To obtain robust models, the researcher aims to maximise the number of degrees of freedom in order to secure parsimonious models (Hair et al 1995).

AMOS tests the model for identification during estimation and will not provide model results unless the model is identified. However, identification for models was assured in advance to avoid the common problems associated with identification ('offending estimates') which include large standard errors for a coefficient(s), negative error variances and high correlations above +/- .90 for estimated coefficients, assessed in each SEM analysis.

A common identification problem, where SEM is used to estimate latent constructs in the measurement models, is the failure to fix or specify the scale of the latent construct. Without this information SEM programs are unable to estimate the latent construct. In common with other studies, in all CFA measurement models one of the structural parameters between a latent and manifest variable was fixed to an arbitrary value of 1.0 making the construct scale invariant (Byrne 1994, Bentler 1980, Hair 1995). Standardised (correlation and standardised regression coefficients) coefficients in the structural and measurement model were used to examine the pattern of relationships across the model are not affected by setting the loading of one variable per latent construct to 1.0 (Arbuckle 1997). A two stage approach to structural equation modelling was employed (see section (iv) below) in the present study. The reliability of the composite single variables used in

Chapter 8 was specified in advance and the variance in the unobserved residual was set at 1.0 in order to provide identification (Williams and Hazer 1986, Anderson and Gerbing 1988).

iv) Two-Stage Analysis Approach

Although both the measurement and structural model can be estimated simultaneously, it has been suggested that the ability to do this, or the one-step approach, does not necessarily mean that is it the preferred way to accomplish model testing (Anderson and Gerbing 1988). Anderson and Gerbing (1988) advocate separate estimation (and re-specification if necessary) of the measurement model prior to the simultaneous estimation of the measurement and structural model. This is commonly referred to as a two step approach. Using this two-stage approach, convergent and discriminant validity in the measurement model (CFA) can be determined in stage one, and as such, stage two represents an assessment of nomological validity. A two-stage approach avoids interaction of the measurement and structural models or what has been termed *'interpretational confounding'* (Bagozzi 1980). For instance, interpretational confounding can occur when a good-fitting measurement sub-model covers up a poor fitting structural sub-model. This occurs because measurement models are generally associated with more degrees of freedom than the structural sub-model. As a result, goodness of fit indices, such as GFI and NFI, are high when applied to the whole model, when in fact the structural model is misspecified (Gerbing and Anderson 1992).

By testing the convergent and discriminant validity of the measurement model in stage one, the two-stage approach allows the researcher to reduce the number of variables contained in the final test of nomological validity, thereby avoiding problems of *'overfitting'* the model by not maintaining a critical ratio of 5 respondents to each estimated parameters. Composite variables were computed for scale items, which accounted for their reliability

and their relative contribution to the latent dimension. In this way, the single composite variables were used at the second stage of analysis did not ignore the biasing effects of measurement error and as such offer a distinct improvement in model assessment compared to traditional approaches including, for example, the use of factor scores. The two-stage approach incorporating composite scale items was necessary to meet the restrictions of sample size to parameter estimates required when using ADF.

This approach has gained in popularity, and for a description of its recent use see Babin and Boles (1997), Selnes (1998), McGoldrick and Pieros (1988). The measurement coefficients are constrained to the square root of the scale's reliability, and the corresponding error coefficients to one minus the scale reliability (Babin and Boles 1997, Kenney 1979, Anderson and Gierbing 1988). This approach, although widely adopted, gives an equal contribution of the scale item to the composite measure. If this assumption is not tested and accepted, past studies have ignored pertinent information derived from the first stage of CFA and are introducing sub-optimality into the second stage of the model testing. As such, in the present study, stage 1 CFA tested whether the latent construct gave equal weight to scale items. Where this assumption was not supported, composite measures were derived by weighting the scale item by its respective standardised regression coefficient.

v) Multiple Group Analysis

Multiple group (or sub-sample) analysis was used in this study in order to compare the museum sub-samples, or conduct other sub-group comparative analyses.

Multiple group analysis tests whether the same factor model holds for each of the groups (or sub-samples). Simultaneous multiple group analysis has a number advantages over conducting separate analyses for each sub-group (Arbuckle 1997). Multiple group analysis

tests whether there are any significant differences in the specified CFA (or other structural model) model for any of the groups examined and provides one set of goodness of fit measures which accounts for the model fit in all sub-groups. If no significant differences are found, or if the group differences concern only a few model parameters, multiple group analysis provides more efficient parameter estimates (i.e. with smaller standard errors) than would be obtained if the groups were examined separately.

In addition, multiple group analysis allows the researcher to place additional constraints on the CFA model, such as specifying that parameter estimates are equivalent in each group (or sub-sample). This enables the researcher to determine the extent to which the groups (sub-samples) are equivalent or differ. In particular, this method allows the researcher to identify where the sub-groups differ in terms of the CFA (or other structural) model specified. Bagozzi (1983), for example, uses this techniques to provide a sequential set of tests which can be used to determine the validity of segmentation analysis by identifying the extent and nature of segment differences. Equally, this methodology can be used to verify that sub-samples come from the same population and the data should be pooled (Bagozzi 1983). Other recent applications of sub-group analysis include Babin and Boles (1998).

c) Assessment of Overall Models Fit (for both CFA and full SEM modelling)

i) Preliminary evaluation of overall model fit

Once the input data and model specification assumptions were known to have been satisfied, models (both CFA and full SEM with latent variables) were examined for offending estimates or anomalies in the output which exceeded acceptable limits (Bagozzi and Yi 1988, Hair et al 1995). In particular the results were checked for negative error variances, standardised coefficients that exceeded or approached 1.0 and large standard errors. These

findings would highlight model specification errors, identification errors or input errors, which would need to be investigated.

If negative error variance is found, it is recommended that the researcher fix error variance to a small positive value of .005 (Hair et al 1995) or smaller at .0005 (Bagozzi and Yi 1988). However, this makes the coefficient results difficult to interpret and should only be undertaken if model misspecification can be ruled out (Bagozzi and Yi 1988). In the present study, negative error occurred only once (chapter 5) and in this instance the error variance was fixed to .005.

Bagozzi and Yi (1988) warn that even if all negative error variances are positive the model should be examined for non significant error variances. Non-significant error variances suggest model specification errors since they identify the unlikely situation where there is no random error. It is recommended that these observations (or another observation) be eliminated from the model, although it is recognised that this procedure could be capitalising on chance and introducing selection artifact (Bagozzi and Yi 1988). Non-significant error variances can arise, however, when two or more measures of a latent variable are highly correlated so that little random error does exist. In such situations one of the measures can be eliminated on the grounds of empirical redundancy (Bagozzi and Yi 1988). In the present study, error variances were checked for significance and no instances of non-significant error variance were found.

ii) Formal Evaluation of Overall Model Fit

Goodness of fit measures evaluate the overall model fit; that is, they simultaneously take account for the measurement and structural model. However, there is no general agreement over a set of appropriate goodness of fit measures (Hair et al 1995), and much reported

confusion (Bagozzi and Yi 1988). Hair et al (1995) divided goodness of fit measures into three distinct classes:

1) *Absolute fit measures* which include the likelihood ratio Chi-square, goodness-of fit index (GFI), the adjusted goodness of fit index (AGFI), the root mean square residual (RMR) and root mean square residual of approximation (RMSEA). Absolute measures of fit determine the degree to which the overall model (both structural and measurement models) predicts the observed covariance or correlation matrix.

2) *Incremental fit measures* which include the Tucker-Lewis index (TL), the Normed Fit Index (NFI)) and the Comparative Fit Index (CFI). Incremental goodness of fit measures compare the proposed model to some null or baseline model.

3) *Parsimonious fit measures*, which include the parsimonious goodness-of-fit index (PGFI) and the parsimonious normed fit index (PNFI). While incremental fit measures compare the models tested to a base line unrestricted model, parsimonious goodness of fit tests assess parsimony by evaluating the fit of the model versus the number of estimated coefficients (or conversely, the degrees of freedom). Parsimonious fit measures are used when comparing competing models.

Gerbing and Anderson (1992) note that the search for fit indices which could overcome the problems associated with the Chi-square measure (sample size, departures from normality) yielded many indices of which none has been endorsed as 'the best' by the majority of research (p.133). Some general norms have been suggested as a baseline set of goodness of fit measures. Hair et al (1995) recommends that one measure from each class of measures be used. This echoes Bagozzi and Yi (1988) who recommended the use of the traditional Likelihood ratio Chi-square, in conjunction with the adjusted goodness of fit index (AGFI), the root mean square residual (RMR) and the normed fit index (NFI) which

aid interpretation of the Chi-square test, which has been found to be sensitive to sample size and departures in multivariate normality. Bagozzi and Yi (1988), did not, however, specify parsimonious fit measures as necessary in model evaluation.

In the present study the Likelihood ratio Chi-square, GFI, AGFI and RMSEA were adopted as absolute measures of fit, in common with the majority of studies in marketing, consumer behaviour and leisure research that have employed SEM analysis. Although, RMR is commonly employed in marketing applications, Monte Carlo tests have shown that the value of RMR is noticeably greater when the data do not have a multivariate normal distribution (see Gerbing and Anderson 1992. As there was a lack of multivariate normality for the data used in the present study,(see section 2.3.2.2 sub section b (i)), RMSEA was employed as this measure has not been found subject to the violation of the multivariate normality assumption.

These absolute measures of fit were supplemented with incremental measures of fit including TLI, CFI and NFI as recommended by Bagozzi and Yi (1988) and the CFI which had recently been used by Bagozzi and Kimmel (1995). TLI was used as a primary indicator of incremental model fit as it is not subject to the effects of sample size and number of indicators per latent variable that have been found to effect NFI (Gerbing and Anderson 1992).

iia) Absolute fit measures used in the present study and Comparing Nested Models

The likelihood ratio Chi-square statistic is the only statistically based measure of fit available to the researcher for evaluating SEM's (Hair et al 1995, Bagozzi and Yi 1988). A large Chi-square value relative to degrees of freedom shows that the observed matrix from the sample and estimated matrix produced by AMOS differ significantly. Low Chi-square values that result in significance levels greater than .05, and .01 in exploratory research,

indicate the actual and predicted matrices are not significantly different (Hair et al 1995). A non-significant Chi-square statistic ($p > .05$) is a standard rule of thumb although this does not mean that the 'correct' model has been specified, but rather that the data fit the model reasonably well. As such, it has been suggested that Chi-square significance values of .1 or .2 are desirable before non-significance is confirmed (Fornell and Yi 1992) in studies that are non-exploratory in nature.

The statistical usefulness of the Chi-square statistic is itself frequently questioned (e.g Bagozzi and Yi 1988, Hair et al 1995) due to its sensitivity to sample size, the number of indicators and departures from normality. Where the sample size and number of indicators in the model increase, it has been noted that there is an greater chance that the Chi-square test will *reject* a 'true' model, that fits the data well, despite the fact that the amount of residual may in fact be trivial. Equally, a researcher may *accept* a 'false' model based on the Chi-square test if the sample size is too small. As such Bagozzi and Yi (1988) recommended primarily using the Chi-square test for *comparing nested models* and it has become widely practiced to accept models with significant Chi-square values if other goodness of fit measures are found to be above recommended levels.

Nested models refer to a situation where there is the same number of variable constructs specified in a model, but where two models differ in terms of the number of specified structural parameters. A model is nested when it shares the same free parameters as a second model but also has other free parameters not shared by the other model (Maruyama 1997). In comparing nested models the significance of difference between the two models is equal to the difference in Chi-square values of the non-nested and nested models at degrees of freedom equal to the difference in degrees of freedom between the two models. Nested model comparisons are used extensively in the present study to test the equality of the measurement models (CFA's) across the two museum styles and other population sub-group differences (for examples, experiences and learning); the equality of scale variables in

a latent construct; and test the equality if structural parameters across museum styles and population sub-groups.

The GFI, AGFI and RMSEA were also used to test absolute goodness of fit. Like all tests other than the likelihood ratio Chi-square statistic, these are not statistically based but rely on rules of thumb that are generally accepted. The GFI represents the overall degree of fit; i.e. it compares the squared residuals from prediction with the actual sample data (Hair et al 1995). GFI is not adjusted for the degrees of freedom. The values range from 0 (poor fit) to 1.0 (perfect fit) and generally values of above .9 are deemed acceptable. The root mean squared residual (RMR) is the square root of the average squared residuals (Arbuckle 1997). Values of .08 or less for RMR are required to indicate a valid model.

The AGFI (Jöreskog and Sörbom 1984) adjusts the GFI by the ratio of degrees of freedom for the proposed model to the null model. AGFI is a more conservative test compared to NFI (Bagozzi and Yi 1988) and it is generally agreed that models with an AGFI greater than or equal to .90 are accepted as valid (Hair et al 1995, Bagozzi and Yi 1988).

RMSEA is the discrepancy per degree of freedom and lower values are preferred. As a rule of thumb values of 0.08 or less are considered acceptable (Hair et al 1995).

iib) Incremental fit measures used in the present study

The NFI (Bentler and Bonett 1980) is a Type I or 'first generation' incremental fit index that directly compares two models. NFI compares the proposed model with a null model which is unconstrained and as such is a model-testing difference technique based on a comparison of relevant models using the Chi-square difference tests. Values range from 0 (no fit) to 1.0 (perfect fit). Bentler and Bonett (1980) consider models with an NFI of greater than or equal to .90 as acceptable, however, Type I indices are currently not

recommended because it is affected by sample size as well as the number of indicators per latent construct (Hu and Bentler 1995, Gerbing and Anderson 1992).

TLI is a Type II incremental fit measure and is also known as the Non-normed Fit Index (NNFI). Type II indexes directly compare two models but also include information of the expected values of the models under a central Chi-square distribution (see Marsh et al 1988 or Gerbing and Anderson 1992) TLI combines a measure of parsimony based on degrees of freedom into a comparative index between proposed and null models. TLI is robust against sample size and the number of indicators per latent variables, but it is not bounded by 0 and 1, making it more difficult to interpret (Mayurama 1997). A value of greater than .9, however, is recommended (Hair et al 1995).

CFI is a Type III fit index (Hu and Bentler 1995). These have not been as widely used in the application of SEM analysis compared to Type 1 and Type 2 indexes (Mayurama 1997). Type III fit indexes compare models directly but in doing so include information about the expected value under a noncentral chi-square distribution. CFI adjusts the Bentler fit index (Bentler 1990) so that it fall between a value of 0 and 1. Again, values of .90 or over are considered to identify acceptable models.

In using TLI, CFI and NFI, the present study aims to capitalise on the recent advances of Type II and Type III incremental fit indices, while retaining Type I indices for comparison with past studies.

iii) Model Re-specification

Steenkamp and van Trijp (1991) recommends the use of the standardised residuals to assist in identifying items that are causing the unacceptable fit in the models which are found to have low measures of goodness of fit. Standardised residuals are the residuals from the

observed and reproduced covariance matrix divided by an estimate of their standard deviation (Jöreskog and Sörbom 1984). Standardised residuals will have a normal distribution if the model is correct, and as such, in acceptable models the majority of standardised residuals should have an absolute value of less than 2.0 and more than –2.0 (Arbuckle 1997).

Examination of the symmetric matrix of standardised residuals allows the researcher to identify problems based on the pattern of standardised residuals presented. The pattern of standardised residuals provides information for re-specification by identifying if sub-groups of variables would more appropriately be conceptualised as a separate factor and/or if a variable belongs to a different factor (Steenkamp and van Trijp 1991). If a subset of variables on a latent construct has large negative standardised residuals with other items on the factor, this suggests that it constitutes a separate factor. If an item has large negative residuals with other items of the same factor and large positive residuals with items on a different factor, those items with which it has positive residuals represent the correct factor to which the item should be placed. Steenkamp (1991) suggests that the items should be deleted where standardised residuals exceed the limits of +/- 2.0 and where no observable pattern suggests model re-specification.

iv) Assessing the Internal Structure of SEM Models

Once the overall model fit has been deemed adequate, the internal structure of models needs to be investigated for non-significant parameters for hypothesised relations and measures with low reliabilities. This is because it is likely that overall goodness of fit measures will suggest a valid model even when elements in the internal structure are not acceptable.

iv a) Latent Variable (Measurement) Model Fit

The estimated loadings in the latent variables were examined for both statistical significance of $p<.05$ and, and to ensure that their values were high, at above .50 but not too high at above .95 (Bagozzi and Yi 1988). Significance was determined using critical ratios (CRs) given in AMOS output files. Critical ratios that fell below the required 1.96 for a two tailed significance test were deemed insignificant. The critical ratio (CR) given in AMOS is the same as the conventional t statistic used in LISREL in the sense that both are found to be exact under assumptions of normality and independence of observations (Runyon and Harber 1980, Arbuckle 1997). However, the t statistic and the critical ratio (CR) differ in that the t-statistic is exact no matter what the sample size, whereas the critical ratio in AMOS provides only an estimate when using finite samples (Arbuckle 1997).

Error variances were also examined for significance. Error variances should be statistically significant as *"it is unreasonable to expect the absence of random error in most managerial and social science contexts'* (Bagozzi and Yi 1988, p 77). Where statistical significance is not achieved the researcher is advised to eliminate the indicator in the measurement model (Bagozzi and Yi 1988, Hair et al 1995).

The final test of the measurement model was an examination of the reliability found in the latent constructs. The reliability was taken for each individual observed measurement, as well as the reliability and variance extracted in the latent construct as a whole. The reliability of individual observed variables were examined using R^2; that is, the amount of the variance explained in the observed construct by the latent variable. Hair et al (1995) do not suggest a rule of thumb for the individual item reliability, and recent studies have simply stated vaguely that those variables with low R^2 were deleted (Babin et al 1994, Bitner and Hubbert 1994). Bagozzi and Yi (1988), however, indicated that the value R^2 for individual observed variables should be lower than the threshold value for composite

reliability (0.6), and suggested a value of .5 or more as a rule of thumb. This means that 50% or more of the variance in the observed variable is explained by the latent construct. This criterion of .5 was adopted in assessing the individual reliability of manifest variables, and where variables are retained with lower individual reliability, justification is given for this.

Composite reliability and variance extracted measures were determined to assess the reliability of each latent construct. Composite reliability measures the internal consistency of the construct indicators (observed variables) and depicts the degree to which the observed variables 'indicate' the latent construct. Composite reliability is similar to Cronbach alpha, except that rather than assuming each item has equal weight as is the case in Cronbach alpha, the number of items are weighted by their respective loadings (Bagozzi and Kimmel 1995). The threshold value of .70 was used to show all observed indicators are consistent in their measurement of the latent variable (Hair et al 1995). Values of less than .7 for composite reliability have been deemed acceptable if the research is exploratory in nature (Hair et al 1995) and Bagozzi and Yi suggest a threshold level of .6 (Bagozzi and Yi 1988). Composite reliability was computed using the following formula:

$$\textbf{Composite reliability} = (\Sigma \text{ std.loadings})^2 \;/\; (\Sigma \text{ std. Loadings})^2 + \Sigma \varepsilon j$$

The average variance extracted measure was used as a complementary measure to composite reliability in assessing the reliability of a latent construct. An average variance extracted of over .50 is seen as highlighting acceptable reliability in non-exploratory studies (Bagozzi and Yi 1988, Hair et al 1995). Variance extracted measures the overall variance in the observed indicators accounted for in the latent construct. The formula used for calculating the variance extracted of a latent construct was:

$$\textbf{Variance extracted} = \Sigma \text{ std.loadings}^2 \;/\; \Sigma \text{ std.loadings}^2 + \Sigma \varepsilon j$$

Lastly, the discriminant validity of in the measurement models was assessed. Initially, CFA's were examined for latent constructs that correlated highly at above .90. This suggests an absence of discriminant validity between the two constructs, and if this is found to be the case one of the latent constructs should be eliminated (Bagozzi and Yi 1988, Hair et al 1995). More formally, the pairwise correlation between latent construct was assessed using nested models where the correlation between the two latent constructs was restricted to 1.0 (e.g. Selnes 1996, Bagozzi and Kimmel 1995). Discriminant validity was accepted when there was evidence of a significant drop in the Chi-square from the constrained to the unconstrained model. Where discriminant validity could not be found through pairwise comparison tests, two additional tests of discriminant validity were employed: firstly, the confidence intervals (+/- 2 standard errors) around the estimated correlations between the pairs of scales were examined to see if they included 1.0 (e.g. Bagozzi and Kimmel 1995); and secondly, the measures of variance extracted for each latent variable were examined to ensure that they exceeded the estimated interfactor correlation between the two latent constructs (Babin and Boles 1998, Fornell and Larker 1981).

ii) Structural Model Fit

SEM as a method has gained popularity because it combines confirmatory factor analysis and regression analysis simultaneously (Linberg and Johnson 1997). In the structural model one or more regression equations are tested for hypothesised 'causal' relationship(s) in which the change in one variable is assumed to result in a change in another variable. As such, this study will refer to significant parameter coefficients as identifying causal relationships. Strict causation, in terms of sufficient association, temporal antecedent(s) and the lack of alternative casual variables, is not implied (Mittal 1993), although Hair et al (1995) suggested that strong casual assertions can be made in the absence of meeting the

strict criteria of causation if the relationships identified are based on theoretical rationale. Full structural equation modelling is used in Chapters 7 and 8 to test the Theory of Reasoned Action and Theory of Planned Behaviour for the two different museums examined.

The coefficients of structural parameters linking one or more latent variables were examined for statistical significance, causal direction, and small but significant error variance. Further, the models were examined for extremely high correlations that would suggest model mis-specification. Once causal parameters and their associated errors had been examined, interpretation of casual relationships, in light of the research hypotheses, are given.

Conclusions and Chapter Summary

This chapter has detailed the two stage qualitative-quantitative approach adopted in this study and has detailed the principal experience, constraint and control dimensions identified during in-depth interviews. The sampling basis of the study has also been established as a multi-stage sampling approach, utilising a systematic random sampling. Two electoral wards of Edinburgh residents were chosen and individuals belonging to middle-class households sampled. The chapter has compared the general socio-demographic profile of the sample to the wards from which they were taken and the sample was confirmed as middle-class. Further, the museum sub-samples which will be used to examine whether the museum interpretative environment mediates the anticipated museum experiences (chapter 5) as well as constraints and control beliefs (chapter 4), were found not to differ significantly in terms of their socio-demographic make-up, providing support for direct comparisons between the two sub-samples.

This Chapter has also detailed the main phases of quantitative analyses: Univariate and bi-variate analysis will be used to gain an initial understanding of anticipated experiences, desirability value as well as perceived constraints and perceptions of control over museum visiting behaviour. The rationale for choosing exploratory principal component analysis as a data reduction technique was followed by a discussion of the use of this method and the main decision alternatives that must be considered in operationalising the technique. The need for confirmatory hypothesis-testing techniques which account for measurement error and which can examine several interdependent regression equations simultaneously was noted, and the final section of this chapter was devoted to a discussion of structural equation modelling. In particular, the need to employ asymptomatic distribution free estimates (ADF), due to a lack of multivariate normality, the need for a two-stage analysis approach, to avoid interpretational confounding between the measurement and structural model, and the rationale for goodness of fit indices chosen, were given. For all statistical applications, the data and sample assumptions were highlighted, and limitations and strengths of the different analyses discussed.

Chapter 3: Patterns of Museum Behaviour

Introduction

The last chapter established the profile of respondents in the survey sample generally and highlighted the comparability of the two museum sub-samples in terms of socio-demographic characteristics (see Section 2.2.5). This sub-sample homogeneity offers support for the validity of making direct comparisons across the two museum style sub-groups.

This chapter describes the incidence of non-visiting and visiting found in the present sample to museums generally and also to the two contrasting styles of museum, the *idea-based* and *object-based* museums, presented as pictorial stimuli to the respondents. The frequently discussed issues of 'social selectivity bias' in museum and cultural consumption are examined within the middle-classes. The chapter concludes that the traditional focus on social selectivity in terms of a distinction between white and blue-collar workers for cultural consumption, and where blue-collar workers are found to under represented, has generally de-emphasised the strong social selectivity that exists within the middle-classes, defined as white-collar workers. The chapter also explores socio-demographic and other *structural* determinants (including residential location, museum socialisation and education) as potential 'causes' of museum visiting behaviour. Finally, this chapter examines whether behavioural consistency exists within museum and heritage visiting, and finds the middle-classes to be heterogeneous in terms of their frequency of museum visits and the use-occasions (situational contexts) which museums fulfil.

3.1 Incidence of Museum Visiting in the Middle-Classes

Interest in who consumes museum and other cultural recreational provision has increased over the last decade, driven principally by two interacting forces; economic development and concern for inequality. Economic pressures and increasing attention to potential market development (Prentice 1998, Davies and Prentice 1995, Robinson 1989) have resulted from an intensifying competitive market base arising from the rapid increase and now over-supply of heritage and cultural attractions (Davies 1994, Cussons 1989, Merriman 1989, Hewison 1987). At the same time there has been significant shifts and reductions in the funding basis of institutions and an accompanying need for independent income generation (Policy Studies Institute 1996, Hooper-Greenhill 1994).

The second focus on who consumes heritage resources comes from concerns regarding potential inequalities in the basis of power and control of the past which is presented and the assumptions of the interpretation given to that past. There have been increasing calls for more accountability in public institutions (Seagram et al 1993) and 'people universities' (Museums Association 1984, Crook 1972), and a general embrace of the notion of the total democratisation of culture (Policy Studies Institute 1996, HMSO 1993, Merriman 1991, Vergo 1989, Lumley 1988). Further, while little attention has been given to understanding the reasons why individuals do not visit museums (Davies and Prentice 1995, McDonald 1993, Falk and Dierking 1992) focus has been given to *educational* and *social welfare gains* (Prentice 1996, Merriman 1991, Haukland 1990, Lowenthal 1987, Hancocks 1987, Mayard 1985, Chadwick 1980, Teruggi 1973) and more recently *benefits* in the form of quasi-educational and/or entertainment experiences (O'Neill and Dufrense-Tasse 1997, Treinen 1993, Beeho and Prentice 1995, Prentice 1993a&b, Chadwick 1980) available to the visitors of museum institutions. These experiences have been classified as nostalgia (Lowenthal 1985, Szacka 1972); aesthetic or affective responses (Zavala 1993, McManus 1993); as

ways of coming to terms with the present (Merriman 1991) and predicting the future (McLean 1995); and as social bonding opportunities (Brown 1995, Falk and Dierking 1992, Blud 1990, Leichter et al 1989, McManus 1988, McManus 1987). And concern extends to the impact of these lost opportunities for those indidividuals latent in the vistor profile of cultural institutions.

The pressures of economy and political and social equality compound when the consumption-driven nature of *cultural production* is recognised. Local governments have increasingly been adopting cultural tourism and the consumption of culture as a means of economic development (Richards 1996, Scottish Tourism Co-ordinating Group 1991, Cussons 1989, Myserscough, 1988, Lowenthal 1985) and differentiation to attract inward investment to European cities and middle-class spending power (Bianchini 1990). Richards (1996) has argued that w*ho consumes* and *the manner in which they consume* culture and heritage will have an important influence on the future production and form of these attractions (Richard 1996).

The most prevalent way of understanding the use of museum and heritage attractions by the public has concentrated on simple 'head counting' supplemented with basic socio-demographic and group composition information (Policy Studies Institute 1996, Wertheim 1994, Scottish Arts Council 1994 , Prentice 1994, Gottesdiener 1993, Prentice 1989). Although the managerial usefulness of this information has been questioned (Davies and Prentice 1995, Davies 1994, Hudson 1993, Prentice 1993a, Pearce and Moscardo 1985, Murray 1932), a review of these studies will place the present study within the context of published statistics and in doing so will identify 1) the impact of the present sample being refined to the middle-classes; 2) the proportion of the middle-classes who miss the social welfare and cultural opportunities available in museums; and 3) assess whether key

variables can 'explain' the incidence of visiting and non-visiting within the middle-class sample.

Previous research capable of informing our understanding of visiting incidence is divided into two broad groups. By far the most popular by volume are on-site visitor studies, which have employed convenience sampling, and from which the characteristics of non-visitors can only be inferred (for example, Prentice 1998, Beeho and Prentice 1985, Herbert et al 1989). In addition the use of convenience sampling suggests that these studies may not be reliable indicators of the behavioural and socio-demographic profile of visitors at museum sites.

A handful of studies exist that have employed probability sampling of the general population within different geographical parameters. These studies offer a more valid estimate of museum visiting incidence and the ability to profile museum visitors and non-visitors in terms of behavioural frequency and socio-demography, and as such these studies potentially provide a useful base of comparison for the findings of the present study. However, as demonstrated below, such studies have been periodic, with several studies detailing behaviour from over a decade ago. In addition, the behavioural measures employed in these studies are not consistent to one period in time and have, for example, measured behaviour in terms of the recency of last visit or the general frequency of visits. More critically, several studies (e.g. Arts Council of Great Britain 1991, Scottish Arts Council 1994) have relied on vague rather than exact measures of visiting behaviour which are likely to be both inaccurate, being more subject to social desirability bias, and are often likely to be measuring a sense of belonging or commitment to museum visiting rather than actual visiting incidence. Lastly, these studies vary in their definition of a museum with some including and others excluding art galleries. The limitations of these studies make it difficult to form a complete picture of what proportion of the British population visit

museums or what the defining characteristics of these museum visitors are. Further, they provide an imperfect basis of comparison to the findings of the present survey.

Estimates as to the number of people who are active in the visitor profile of museums differ significantly. Leisure Consultants (1990) and Middleton (1990) estimated that 27.5% and 29% of the British population had been to a museum or gallery in 1989, while the Arts Council of Great Britain (1991) determined that 48% of the population were recorded as attending museums, galleries or exhibitions *'nowadays'*[1]. Interestingly Merriman (1991), in reviewing a collection of pre-1989 studies, found partial support for these contrasting findings. Merriman (1991) reported that the studies collectively estimate museum visiting incidence per annum to be between 24%-47% of the population in the United Kingdom, and on average 50% of the population in American and Canadian studies. The variability in these estimates led Merriman to question the impact of method and sample bias. His own study took account of these biases and suggested that 47-58% was a more valid indication of the percentage of the British population who visit a museum once a year. Other studies have supported Merriman's (1990) higher estimates, finding, for example, that on average each adult in the British population visits a museum or art gallery 0.8 days of the year (OCPS 1989). However, averages for the total population generally provide a misleading picture of the nature of museum visiting. For example, Hooper-Greenhill (1994), based on Middleton's (1990) estimate that 29% of the population visit museum and the British Tourist Authority (1991) annual visitor statistics for museum attractions, concluded that the proportion of the British population who visit museums must do so 4 times a year. This demonstrated that a small proportion of the population on a regular basis disproportionately

[1] 'Nowadays' is clearly a vague concept and as such is not directly comparable to notions of visiting in the previous 12 month. 'Nowadays' is likely to capture an individual's assessment of whether they belong or associate themselves with museum visiting rather than whether they actually visit. As such this measure cannot be considered a valid or reliable behavioural index. Hooper-Greenhill (1994) in contrast argues that this vague behavioural measure is likely to lead to museum visiting per year being under estimated.

experience museum visits.

With reference to the Scottish population in particular, studies have indicated that museum visiting is slightly higher than that found elsewhere in the British Isles. System Three Scotland (1985), for example, found 55% of respondents had been to a museum or gallery in the previous 12 months. Similarly, and although subject to measurement error because of vague behavioural measurement, the Scottish Arts Council (1994) assessed museum visiting incidence to be higher than among the general British population, with 62% of Scottish residents *'ever going'* to a museum. However, where this behavioural measure was limited to the previous twelve months, these findings suggests that Scottish museum visiting may be lower than that reported for Britain as a whole; only 24% of the Scottish population currently attend museums *more than once a year.*

National Audit Office (1995) examined the incidence of museum visiting among Edinburgh residents[2]. They found that 56% of Edinburgh residents had visited one of the National Museums of Scotland institutions in the *last three years* and that 29% of local residents expressed no interest in visiting museums. The National Audit Office also reported a general upward trends in terms of absolute number of visitors to the museum attractions of the National Museums of Scotland from 0.8 million visitors in 1988 to 1.1 million visitors in 1993 (National Audit Office 1995). However, although encouraging these figures do not explain if these increases are due to successful market development and a wider audience base, or whether the same proportion of the population are attending more frequently.

[2] The National Audit Office (1995) study does not extend to the whole of Scotland and considers only local residents in the Edinburgh area. How the Edinburgh area was operationalised was not given but is likely to be based on census wards.

In the present study 90.0% of respondents had visited a museum[3] in the last 12 months (see Table 3.1). As would be expected from the middle-class sample, the proportion of residents who had visited a museum in the 12 months prior to the survey was significantly higher than the national averages for the United Kingdom suggested by Merriman (1991), for Scotland (System Three Scotland 1985), and for Edinburgh residents generally (National Audit Office 1995). The social selectivity and disproportional number of higher social class individuals present in the museum visitor profile have been noted elsewhere, including for example, the Scottish Arts Council (1991), who found 80% of ABC1 *'ever going'* to a museum, gallery or exhibition, compared to 56% of C2DE social groups. Several on-site surveys have similarly reported a disproportional number of non-manual occupations in the visitor profile (Prentice 1998, Beeho and Prentice 1995, Prentice 1994, Light and Prentice 1994b, Prentice 1993a, System Three Scotland 1985).

In order to examine if the social selectivity[4] exists within the middle-classes, the present study examined whether visiting in the previous 12 months was contingent on a range of social class and socialisation differences within the sample studied. Table 3.1 shows that recent museum visiting was contingent on the respondent's education ($p<.000$, Cramer's V = .254); respondent's occupational social class[5], ($p = 0.01$, Cramer's V = .177); income ($p = .02$, Cramer's V = .166); and to a lesser extent to the respondent's socialisation including their parent's education ($p =.003$, Cramer's V = .147); the recollections of the respondent about the interest of respondent's parents in museums when the they were a child ($p=.05$, Cramer's V = .123); and the recollected number of family visits as a child ($p=.05$, Cramer's

[3] This behavioural question was not restricted to whether the respondent had visited a museum like the one shown in the pictorial collage. Respondents were asked if they had visited any of the following museums in the last 12 months: industrial heritage, natural history, social history of archeology, science and technology and art galleries.

[4] Social selectivity refers to descriptive evidence which has suggested that those individuals of a higher social class are more likely to visit museums and other heritage attractions (see Prentice 1993a for examples).

[5] Chapter 2 noted that the sample extended to middle-class households in Edinburgh. These were defined as those households where the respondent or spouse was employed in an occupation classified as social grade I, II or IIIn in the 1991 Census.

Table 3.1: Effects of Socio-Demographics & Class Socialisation & Museum Socialisation on Museum Visiting Incidence in the previous 12 month period

	Visits in previous 12 months		No visits in previous 12 months		*Chi-sq statistic (df) significance level Cramer's V*
	n	%	n	%	
Socio-demographic & Class Socialisation					
Respondent's education					
school or less	80	**22.2**	23	**57.5**	*25.752 (2)*
higher ed below degree	203	**56.4**	16	**40.0**	*p<.000*
degree or above	77	**21.4**	1	**2.5**	*.254*
Household income (n= 378)					
£14,999 and below	97	**28.4**	18	**50.0**	*10.365(3)*
£15,000 - 24,999	99	**28.9**	4	**11.1**	*p=.02*
£25,000-34,999	79	**23.1**	10	**27.8**	*.166*
£35,000 and over	67	**19.6**	4	**11.1**	
Occupational social class					
I	57	**15.8**	3	**7.5**	
II	141	**39.2**	10	**25.0**	*12.541 (4)*
IIIn	94	**26.1**	18	**45.0**	*p=.01*
Other	38	**10.6**	8	**20.0**	*.177*
Student	30	**8.3**	1	**2.5**	
Middle Class Index					
Upper Quartile	78	**21.7**	22	55.0	
Upper middle quartile	91	**25.3**	9	22.5	*23.304 (3)*
Lower middle quartile	95	**26.4**	6	15.0	*p<.000*
Lower quartile	96	**26.7**	3	7,5	*.241*
Parent's education (n=371)					
school or less	185	**55.1**	28	**80.0**	*8.064 (1)*
higher education	151	**44.9**	7	**20.0**	*p=.008*
					.147
Museum Socialisation					
Interest of parents when respondent was a child (n=398)					
extremely or quite interested	145	**40.4**	11	**28.2**	
slightly interest/nsf/slightly disinterested	130	**36.2**	12	**30.8**	*5.975(2) p=.05*
extremely/quite uninterested	84	**23.4**	16	**41.0**	*.123*
Visits with family					
never/once a year	218	**60.6**	30	**75.0**	*2.604(1)*
2 + times a year	142	**39.4**	10	**25.0**	*p=.05*
					.089

N=400, unless otherwise stated

V = .089). In particular, Table 3.1 shows that a significant proportion of respondents who had *not been* to a museum in the last 12 months were educated to school leaving age or

less (54.8%); had household incomes of less than £14,999 (47.4%); belonged to clerical social class 3n (45.2%); and had parents who were not educated to higher education level (75.7%). The consistency of these findings with other studies offers further support for the social selectivity of museum visiting, and in particular, emphasises that social selectivity operates within the middle-class households, as well as being evident in differences in the sense of ownership and use of cultural heritage resources between white and blue collar households.

In order to examine the composite 'effect' of present and past (socialised) class, the impact of the middle-class index (see Chapter 2: methodology) on museum visiting incidence was assessed. Further differences in museum visiting were identified ($p<.000$, Cramer's $V = .241$), but these did not represent the expected linear increase, from lower positions in the index to higher positions in the index, in the proportion of respondents visiting museums per year. Table 3.1 shows that those in the middle lower and lower quartile of the index were more likely to have *visited* a museum in the previous 12 months. The lower proportion of visiting found in the upper quartiles of the index may reflect the greater constraints faced by these respondents in terms of time (see Chapter 4), a rejection of the new museum exhibition styles (see Chapter 5) or lethargy attributable to a sense of belonging to the museum fraternity resulting from socialisation and past visiting, but in reality never managing to visit in the previous 12 month period.

3.1.1 Effect of Leisure Values and Museum Related Pastimes on Museum Visiting

Hood (1983) found an individual's valued leisure attributes distinguished between frequent, occasional and non-visitors to museums. Respondents in the present study were given a similar list of general leisure attributes (see question D3) and were asked to identify which were the most important to them in their favourite leisure pastime. In contrast to the

findings of Hood (1983) in the USA, the present study was unable to identify any differences between individuals who had and who had not visited a museum in the past 12 months in terms of their valued leisure attributes. This suggests that individuals from middle-class households hold similar sets of valued attributes which does not discriminate between those respondents who have and who have not visited a museum in the last 12 months. Hood's (1983) finding that valued leisure attributes have discriminatory power in identifying sub-groups of visitors and non-visitors may as such be a function of social class differences in the population studied which were not identified in her study. Equally, however, the findings of the present study may also be due to the relatively small proportion of respondents who had *not visited* a museum in the previous 12 month period (n=40), the use of nominal measures and the British context of the present study. Further British studies with a larger absolute number of respondents who have not visited in the previous 12 months and employing at least ordinal scaled measures of leisure attributes are required to evaluate the above competing hypotheses.

In contrast to the lack of significant effect of valued leisure attributes on museum visiting behaviour, museum and history related leisure pastimes were found to hold what appeared to be a reinforcing effect on museum visiting in the current study. Table 3.2 shows that the majority of those respondents who had visited a museum in the previous 12 months read history non-fiction books (65.0%, p=.001, Cramer's V = .170), watched historical television documentaries (81.2%, p<.000, Cramer's V = .200), had kept a collection of somekind (41.6%, p<.000, Cramer's V = .181) or had studied history privately or formally (28.6% and 95.9%, p=.04, Cramer's V= .109). These findings are not surprising but suggest that museum based communication could capitalise on the strong link found between these behaviours.

Table 3.2: Effects of Museum Related Leisure Interests on Museum Visiting Incidence in the previous 12 month period

	Visits in previous 12 months		No visits in previous 12 months		*Chi-sq statistic (df) significance level Cramer's V*
	n	%	n	%	
Museum-related Leisure Pastimes					
Non-fiction history reading					*Chi-sq statistic=10.445 df=1*
not undertaken	126	**35.0**	25	**62.5**	*p=001*
undertaken	234	**65.0**	15	**37.5**	*Cramer's V=.170*
Watch historical TV documentaries					*Chi-sq statistic=13.001 df=1*
not undertaken	62	**18.8**	16	**47.1**	*p=.001*
undertaken	268	**81.2**	18	**52.9**	*Cramer's V=.200*
Kept a collection					*Chi-sq statistic=13.119 df=1*
not undertaken	209	**58.1**	35	**87.5**	*p<.000*
undertaken	151	**41.9**	5	**12.4**	*Cramer's V=.181*
Formal or private Education					*Chi-sq statistic=3.959 df=1*
not undertaken	257	**71.4**	35	**87.5**	*p=.02*
undertaken	103	**28.6**	5	**12.5**	*Cramer's V=.109*

N = 400, except where stated.

3.1.2 Availability of Museums

Lack of proximity and the ability to travel to museums have been suggested as a structural constraint in heritage visiting. Studies have found that individuals do not travel large distances to visit attractions and that visitors predominantly rely on private transport to visit heritage sites (Prentice 1989, Light and Prentice 1994b, Arts Council of Great Britain 1991, Prince 1983). The latter findings are likely to be peculiar to built heritage, which are location specific, rather than large museums, as collections of heritage artefacts, which tend to be located in cities.

In the present survey, some differences were expected between respondents who lived in inner-urban (Tollcross) and the suburban (N.E. Corstorphine), due to the proximity of

museums and general lifestyle characteristics. No significant differences in terms of visiting were identified, however, between respondents living in Tollcross (inner-urban) and N.E. Corstorphine (outer-urban residential). Equally car ownership was not found to affect museum visiting, even though it has been identified as a significant factor in visiting other heritage sites (e.g. Herbert 1989). Again, the small proportion of non-visitors identified for a 12-month period may have resulted in no differences being identified. Equally, the behavioural measure used in the present analysis takes account of a variety of museum types and such is likely to be masking differences in opportunity and availability experienced in visiting specific museum attraction types. For example, industrial heritage theme parks are often located in rural or edge of town developments and are not served by convenient public transport. However, the abundance of museums in Edinburgh city centre, the inability to park in Edinburgh city centre, or the predominantly *holiday* context (see later in this chapter) which characterise museum visits in the present sample, can offer some explanation for the independence of museum behaviour and residential location.

3.1.3 Effects of Age, Gender and Life-cycle on Museum Visiting

In common with other studies on museum and art gallery consumption (Scottish Arts Council 1994, Hooper-Greenhill 1994), gender was not found to discriminate between visitors and non-visitors to museums in the present survey. These findings stand in contrast to the majority of heritage and cultural consumption studies that have found more females than males in the visitor profile at heritage attractions (for example, Beeho 1997, Prentice and Cunnell 1998, Prentice 1993a, Prentice 1989), and which may be due to sampling error associated with convenience methods and on-site studies. Similarly, whereas most museum and heritage studies have found visiting subject to age and family life cycle stages (see for example, Prentice 1993a, Merriman 1991, Rapoport and Rapoport 1975), with a disproportional number of families with children and a lack of young adults

found in the visitor profile at attractions, the present study did not find any differences in museum visiting behaviour due to age, family life-cycle or gender. Interestingly, although these demographic differences in the population did not discriminate between visiting and non-visiting within a twelve month period, they were found to differentiate the experiences perceived to be on offer in museum attractions (see Chapter 5) and the desirability value residents attach to these experiences (see Chapter 6).

3.2 Situational Context of Museum Visiting

Table 3.3 shows that museums are primarily consumed as a holiday activity; 79.3 % of those who had been to a museum in the previous 2 years[6] had visited whilst on holiday. These findings are consistent with studies in Wales and the Isle of Man (Thomas 1989, Prentice 1993b), which concluded that heritage visiting forms part of a general recreation excursion.

Table 3.3: Situational context or use-occasion of museum visits in the previous 2 years

day trip		VFR*		Holiday		New Exhibition		Re-visit		Rainy Day		Occupy Children	
N	%	N	%	N	%	N	%	N	%	N	%	N	%
139	**36.9**	*151*	**40.1**	*299*	**79.3**	*218*	**57.8**	*108*	**28.7**	*74*	**19.6**	*99*	**26.3**

N=377, * Visiting friends and relatives

A new exhibition was the second most popular reason or 'pull-factor' for museum visits in the sample of Edinburgh residents surveyed (57.8%). This finding is consistent with the recent survey undertaken by the National Audit Office (1995) who found that 35% of respondents cited '*seeing a particular exhibition*' as a reason of visiting for visiting the

[6] 2 years was the time frame used in the questionnaire. A period of greater than 12 months was included to account for differences in the period or month of the year taken for holidaying activities that might have occurred in the previous 12 months.

Royal Museum of Scotland. However, in contrast to the National Audit Office (1995) study which found that the most popular reason for visiting the Royal Museum of Scotland was *'to accompany children'* (43%), in the present study only 26.3% of respondents cited *'to occupy by children'* as a situational context for visiting a museum. This latter finding in the present study seems to confirm the recreational rather than educational or philanthropic context of museums visits generally. Indeed as evidence of this recreational rather than educational or formal learning orientation, Graf (1994) identified *'active laziness'* and *'cultural window shopping'* as the dominant behaviour in museum exhibitions, where it was found that visitors did not study or read exhibits but moved around as if in 'play', guided by the attraction of single highlights or extrinsic elements of the exhibits as well as their personal interest and backgrounds. In addition, findings in the present survey suggest that recreational entertainment for visiting family and relatives represents a valid situational context for museum visits for a significant proportion of the present sample (40.1%). The contrast in findings from the present study to those of the National Audit Office noted above, suggest that specific museums, such as the Royal Museum, may be viewed differently from general images and uses of museums. As such, the contrasting findings are due, in part, to differences in the level of aggregation or generality in the questions posed in the two studies. Qualitative interviews undertaken in the first stage of data collection provided some support for these conclusions; one interviewee with children revealed the Royal Museum in Edinburgh as often being formally linked with school projects. The situational use of museums as a formal part of educating children was not included in the main survey because it was only mentioned by one respondent during qualitative interviews (Ross & Dawson 1993, Prentice 1994b, Merriman 1991, ACGB 1991).

Day trips were not found to be a primary situational context for visiting museums in the present study. Only 36.4 % of respondents cited a day trip as a the context for choosing to visit a museum. However, when compared to the general British population for whom day-trips were identified as the context for museum visits for only 29% of individuals (Leisure

Consultants 1991), the middle-class residents of Edinburgh can be considered to be disproportionately high in their use of museum visits to form day trips. Interestingly, Mackenzie (1985) found only 7% of Scottish respondents identified museums, stately homes and historic houses as the *main recreational stop* on a day trip. The findings from the present survey, as such, suggest that middle-class Scottish urban residents are particularly high in their use of museums as part of day trips, compared to the Scottish population as a whole. However, as day-trips only represent the recreational context of museum visits for 36.9% of middle-class Edinburgh residents, caution should be exercised in viewing the museum as a *main* 'pull' factor in day trips. This conclusion is consistent with other studies including, for example, Thomas (1989) and Prentice (1993a), who similarly suggested that heritage attractions may offer a specific destination only in the context of a general day trip with eating out, visiting shops and drives through the countryside predominating other activities pursued.

A comparison of situational context of museum visits by residential location did not reveal any significant differences in the situational context associated with museum visits by residents who differed in their spatial proximity to these attraction (i.e. inner urban and suburban residential). Further, the present analysis revealed that respondents assigned to idea and object museum sub-sampled did not vary in the situational contexts to which they associate museum visits, offering further support for viewing the idea and object-based museum sub-samples as matched samples.

3.2.1 Deriving a Use-Occasion Index

Table 3.3 above has shown the different situational contexts that are likely to stimulate or facilitate respondents in choosing a museum as a leisure consumption setting. Museum visits were found to be contained within the opportunity or evoked sets of respondents predominantly for holiday recreational activities (79.3%), but also for entertaining visiting friends and relatives (40.1%) and as part of a day trip (36.9%). The absolute magnitude of

situational contexts that serve as motivational 'push' factors (Pearce 1987) can be seen as consistent with the total number of differing occasions where individuals think about visiting museums. A crude index of *'use-occasion level'* was derived by summing the seven occasions measured in Table 3.3 to indicate the number of occasions museums were chosen by respondents as a means of satisfying leisure needs. Table 3.4 shows the proportion of respondents using museums at different *'use-occasional levels'* and highlights the heterogeneity in the middle-classes in terms of the *situational uses* to which museum visits are given.

Table 3.4 shows that the middle-class respondents interviewed were not equal in the number of use-occasions they associated with museum trips. Of those middle-class respondents interviewed 22.5% held one occasion, 26.0% held two occasions, 23.6% held three occasions and 27.9% held four occasions as contexts in which to take museum trips. Table 3.4 demonstrates that although a high proportion of the present sample are active in the visitor profile of museums generally (see previous section on annual visitor rates), there are significant opportunities for museum managers to increase the number of use-occasions these visitors associate with museum visiting. Programmes designed at increasing the number of use-occasions identified with museum visits represents one potentially useful avenue of market development (Ansoff 1957).

Table 3.4: **Distribution of Use-Occasion Levels (N=377)**

No of occasions in last 2 yr.	*n*	%
one	*85*	**22.5**
two	*98*	**26.0**
three	*89*	**23.6**
four	*53*	**14.1**
five or more	*52*	**13.8**
Total	377	**100.0**

3.2.2 Effect of Social Class and Respondents socialisation on Number of Use-Occasions Associated with Museum Visits

Table 3.5 shows that socialisation, in terms of number of visits with the family, affects the number of use-occasions museums had facilitated in the previous two years and provides

Table 3.5: The Effect of Socio-demographics, Class Socialisation & Museum Socialisation and on the Number of Use-occasions Identified for Museums Visits in the previous 2 years

	One Occasion		Two Occasion		Three Occasions		4+ occasions		x^2 (df) Significance Cramer's V
	n	%	*n*	%	*n*	%	*n*	%	(N=377)
Socio-demographics & Class Socialisation									
Middle Class Index									
Upper quartile	30	35.5	33	33.7	10	11.2	14	13.3	*46.204 (9)*
Middle upper quartile	27	31.8	22	22.4	30	33.7	18	17.1	*p<.000*
Middle lower quartile	20	23.5	21	21.4	25	28.1	31	29.5	*.202*
Lower quartile	8	9.4	22	22.4	24	27.0	42	40.0	
Occupational Social Class									
I	*7*	8.2	*16*	16.3	*16*	18.0	*19*	18.1	*28.380 (12)*
II	*24*	28.2	*36*	36.7	*36*	40.4	*48*	45.7	*p=.005*
Iin	*33*	38.8	*32*	32.7	*22*	24.7	*18*	17.1	*.158*
Other	*16*	18.8	*6*	6.1	*5*	5.6	*13*	12.4	
Student	*5*	5.9	*8*	8.2	*10*	11.2	*7*	6.7	
Self-graded social class									
Upper middle class	*8*	9.4	*19*	20.4	*18*	22.0	*18*	18.0	*13.512 (6)*
Lower middle class	*47*	55.3	*42*	45.2	*46*	56.1	*62*	62.0	*p=.04*
Working class	*30*	35.3	*32*	34.2	*18*	33.0	*20*	20.0	*.137*
Respondent's education									
school or less	*31*	36.5	*30*	30.6	*16*	18.0	*14*	13.3	*25.059 (6)*
higher ed below degree	*47*	55.3	*49*	50.0	*53*	59.6	*60*	57.1	*p<.000*
degree or above	*7*	8.2	*19*	19.4	*20*	22.5	*31*	29.5	*.182*
Family Life Cycle									
single - no children at home	*13*	15.3	*14*	14.3	*22*	24.7	*27*	25.7	*12.528 (6)*
couple - no children	*44*	51.8	*49*	50.0	*48*	53.9	*40*	38.1	*p=.05*
dependent children	*28*	23.3	*35*	35.7	*19*	21.3	*38*	36.2	*.129*
Parent's education									
school or less	*50*	68.5	*52*	56.5	*47*	55.3	*47*	46.5	*20.953 (6)*
higher ed below degree	*19*	26.0	*35*	38.0	*25*	29.4	*31*	30.7	*p=.002*
degree or above	*4*	5.5	*5*	5.4	*13*	15.3	*23*	22.8	*.173*
Museum Socialisation									
Visits with Family as a child									*16.034 (3)*
once a year or less	*60*	70.6	*71*	72.4	*51*	57.3	*51*	48.6	*p=.001*
2 or more times a year	*25*	29.4	*27*	27.6	*38*	42.7	*54*	51.4	*.206*

partial support for the longer term strategic aims of current museum educational programmes.

Of those respondents who were taken two or more times a year to museums by their family as children, 37.5% and 26.4% used museums to satisfy four or more and three different occasions respectively. In comparison, those respondents who were never taken to museums or taken infrequently when they were a child, identified one (28.5%) or two (17.4%) use occasions for museum visits (p=.001, Cramer's V = .206).

The number of use-occasions associated with museum visiting was also found to be higher in the lower two quartiles of the middle class index. 43.8% of those in the lower quartile and 32.0% of those respondents in the middle lower quartile identified 4 or more use-occasions for museums in the previous 2 years, whereas the majority of those in the upper quartile identified only one or two use-occasions (34.5% and 27.9% respectively, p<.000, Cramer's V = .202). These findings are inconsistent and contrary to what might be expected; they suggest that individuals who were found to have a lower composite cultural social grading associate museum visits with more use occasions than individuals who achieve higher ratings on this index.

However, when individual indicators were examined to assess the primary 'cause' of the above findings, a competing set of conclusions were drawn. Examination of occupational social class revealed that a significant proportion of those respondents in occupational social grade I and II identified four or more use-occasions (32.8%, 38.2%respectively), compared to respondents from class IIIn and 'other' social grades, where there was limited consensus for only one use-occasion for museums in the previous 2 years (31.4% and 40.0% respectively, p=.005 Cramer's V=.158). A similar pattern was found for the effect of self-rated social class membership on the number of use-occasions; of those respondents who considered themselves working class, 30.0% identified one and 32.0% identified two

use occasions. In contrast, 30.8% of respondents who considered themselves to be middle-class identified 4 or more use occasions for museum visits (p=.03, Cramer's V = .157).

In terms of education, where the respondent and his or her parents were educated to degree level or above, a significant proportion (40.3% and 51.1% respectively) identified four or more use-occasions. In comparison, for respondents with no higher education or with parents who had no higher education, one (34.1% and 25.5%) or two (33.0% and 26.5%) use-occasions were found to be the most common (p<.000 Cramer's V=.182; p=.002 Cramer's V = .173). Together, these findings suggest that the middle-class index was not effective in capturing the aggregate dynamic of cultural social class on the number of use-occasions associated with museum visits. The inability of the middle-class index to represent the aggregate effects of social class related variables questions the utility of using the middle-class index in subsequent analyses.

It was anticipated that stage in the family life cycle would be associated with the number of use-occasions associated with museum visits by respondents. However, only a small significant difference, at p=0.05, was found for the effects of family life cycle on the magnitude of use occasions associated with museum visits. As would be expected, if museum visits are a form of family recreation (Rapoport and Rapoport 1975), the present study found couples without children used museum trips for fewer occasions than couples with dependent children. For example couples with children (31.7%) used museum visits for four or more different occasions, while the most common use-occasion level associated with couples who had no children was 2 use occasions *(27.1%, p = .05, Cramer's V = .129).*

3.2.3 Effect of Museum Related Leisure Pastimes on the number of Use-Occasions associated with Museum Visits

Table 3.6 demonstrates that respondents who associated more use-occasions with museum visits support their museum visiting activities with a range of museum-related pastimes,

many of which occur out of the home. A positive relationship was identified between studying history formally (for qualifications) or privately (for no qualifications) and the number of use-occasions identified; 39.2% of those who had studied history in some form

Table 3.6: The effect of museum related leisure pastimes on the number of use-occasions identified for museum visits in the previous 2 years

	One Occasion		Two Occasion		Three Occasions		4+ occasions		*Chi-square(df) Significance Level Cramer's V*
	n	%	*n*	%	*n*	%	*n*	%	(N=377)
Museum Related Pastimes									
History Study									*16.578 (3)*
None	*74*	**87.1**	*75*	**76.5**	*61*	**68.5**	*65*	**61.9**	*p=.001*
Formal or private	*11*	**12.9**	*23*	**23.5**	*28*	**31.5**	*40*	**38.1**	*.210*
Reading historical non-fiction									*33.513 (3)* *p<.000*
not undertaken	*49*	**57.6**	*37*	**37.8**	*33*	**24.1**	*18*	**17.1**	*.298*
undertaken	*36*	**42.4**	*61*	**62.2**	*56*	**62.9**	*87*	**82.9**	
Historical TV Fiction									*25.250 (3)*
not undertaken	*54*	**69.2**	*43*	**50.0**	*32*	**39.5**	*32*	**33.0**	*p<.000*
undertaken	*24*	**30.8**	*43*	**50.0**	*49*	**60.5**	*65*	**67.0**	*.272*
Historical TV documentary									*20.643 (3)*
not undertaken	*28*	**35.9**	*16*	**18.6**	*18*	**22.2**	*8*	**11.4**	*p<.000*
undertaken	*50*	**64.1**	*70*	**81.4**	*63*	**77.8**	*89*	**91.8**	*.246*
Kept a collection									*21.082 (3)*
not undertaken	*67*	**78.8**	*59*	**60.2**	*49*	**55.1**	*49*	**46.7**	*p<.000*
undertaken	*18*	**21.2**	*39*	**39.8**	*40*	**44.9**	*56*	**53.3**	*.236*
Genealogy									*13.625 (3)*
not undertaken	*76*	**89.4**	*79*	**80.6**	*61*	**68.5**	*75*	**71.4**	*p=.003*
undertaken	*9*	**10.6**	*19*	**19.4**	*28*	**31.5**	*30*	**28.6**	*.190*
Member of historical org									*7.973 (3)*
no	*79*	**92.9**	*92*	**93.9**	*79*	**88.8**	*87*	**82.9**	*p=.05*
yes	*6*	**7.1**	*6*	**6.1**	*10*	**11.2**	*18*	**17.1**	*.145*

identified four or more use-occasions. Similar positive relationships were found for other museum-related leisure pursuits including reading history non-fiction books ($p<.000$, Cramer's V =.298); watching historical television fiction ($p<.000$, Cramer's V = .272); watching historical television documentaries ($p=.000$, Cramer's V = .246); keeping a collection of somekind. As such, the present findings suggest museum visits form part of a constellation of heritage products which are jointly consumed and represent a bundle of like interests, or different ways of effecting the same interest or gaining a desired benefit.

Economic theory associated with *'stimulation goods'* (Scitovsky 1978) provides some initial support for these conclusions: For stimulation goods, instead of diminishing marginal utility being observed as would normally be associated with fast moving consumer goods, marginal utility remains constant or increases with successive increases in consumption. The increasing marginal utility reflects the increasing enjoyment and fascination associated with stimulation goods and the present findings suggest that socialisation and familiarity with heritage activities is important to ensure access to museums as a stimulation good. The proposition that museum visits can be seen as stimulation goods will be explored in more detail in Chapter 8, where past experience is examined as a moderating variable in the Theory of Planned Behaviour. However, it should be noted that future research is necessary to explore whether different life-style (Andreasen and Belk 1980) and personality characteristics (Hirschman 1986) of respondents make them prone to the spreading activation of stimulation goods and the associated higher level of occasion-use and the cross-fertilisation of leisure activities.

3.3 Behavioural Consistency and Visiting Different Museums

Studies have previously found that visitors to one heritage attraction are also likely to be visitors of other heritage attractions. Examples include, Prentice (1993a&b) who found tourists to the Isle of Man had visited a range of heritage attractions in the previous 12 months; Prince (1983) who found that those people who use nature trails were also likely to visit museums, nature reserves and craft centers; Merriman (1991) who found that museum visitors generally attended a whole range of high cultural activities; and Arts Council of Great Britain (1991) who found significant over-laps between visitors to different cultural events highlighting that people who attend one type of cultural event were more likely than average to attend other. Similarly, a street survey of Edinburgh residents (n=879) revealed that 51.6% of respondents had visited a museum, 59.8% a theatre and 26.2% an industrial heritage attraction in the last 12 months (Prentice et al 1997). Although in the Prentice et al (1997) study there was no direct comparison of whether respondent's participation in one

activity was consistent with their participation in another heritage activity, the results provide some weak support for the notion that individuals who visit one type of heritage attraction are more likely to consume other heritage attraction types. Prince (1983) believed that this *'behavioural consistency'* in leisure activities was *"rooted in leisure needs and cultural orientation and subgroup allegiance through socialisation and the maintenance of self* "(p 240). The concept of behavioural consistency can be seen as linked to Bourdieu's idea of *'cultural capital'* and class distinction (Bourdieu 1984) and Holt's (1995) *'consuming as classification'* consumer.

Museums vary in the range of subjects presented and this provides one mechanism for describing the heterogeneity in the supply of museum attractions (Prentice 1993a). Clearly other classification criteria, such as indoor and out-door or collection and non-collection based can be found, however, for the present survey, museums were classified into 5 board subject types, (social history and archeology, science and technology, natural history or nature, themed heritage parks and art galleries), in order to identify the different types of museum attractions respondents had visited. Table 3.7 details the proportion of respondents who had visited each type of museum in the previous 12 months.

Table 3.7: **Proportion of Respondents who have visited different subject types of museums in the previous 12 months**

Museum Type	*n*	%
Social history and archeology	*263*	**73.1**
Science and technology	*144*	**40.0**
Natural history/nature	*195*	**54.2**
Themed heritage park	*107*	**29.7**
Art gallery	*239*	**66.4**

N=360

Of those respondents in the present survey who had visited a museum in the previous 12 months, the majority of respondents had been to a social history or archeology museum (73.1%), art gallery (59.8%) or natural history (54.2%) museum. Themed heritage parks (29.7%)and science and technology museums (40.0%) were much less common in the

profile of museum visits found among middle-class Edinburgh residents, reflecting perhaps the more limited supply of the former and the primarily holiday context of museum visiting, where individuals visit museums to find out more about the local area and its people, and which would account for the lower observed levels of visits to science and technology museums.

The *generalist* (general sight seeing) rather than *specialist* (with a particular interest in the history presented) basis museum visiting motives has been noted elsewhere (Prentice1993a&b, Falk and Dierking 1992, Thomas 1989), and suggests that heritage and museum visits, for the majority of visitors, are not a form of *'serious leisure'* (Stebbins 1992&1996). However, within this generalist mode of consumption behaviour, it seems likely that individuals will vary in terms of the number of different subject types of museums they visit, and this information could used as an index of heritage interest or breadth of heritage interest, as has been done elsewhere (e.g. Prentice 1997, Prentice 1993a).

Table 3.8 shows the relative diversity in museum types experienced by middle-class residents during that period. Support for Prince's (1983) notion of behavioural consistency, or that people who visit one heritage attraction are likely to visit another, can be found in that 18.3% of respondents had visited only one heritage type in the previous 12 months.

Table 3.8: The relative diversity in museum types experienced by middle-class residents in the previous 12 months

No. of museum types	*n*	%
5	*21*	**5.9**
4	*72*	**20.2**
3	*94*	**26.4**
2	*104*	**29.2**
1	*65*	**18.3**
Total	*356**	**100.0**

*N=356. Four respondents had not been to any of the types of museum style measured in the questionnaire

3.3.1 The Effect of Socio-demographics and Socialisation on Number of Visits to Different Heritage Attraction Types.

Table 3.9 examines whether the number of museum subject types visited was contingent on socio-demographic, socialisation, and frequency of visits and use-occasion level. As would be expected a strong and significant positive relationship was found between the number of visits per annum the number of museum types respondents had visited in a 12 month period *(p<.000, Cramer's V = .512).*

Table 3.9: Effect of Socio-demographics, Class Socialisation and Museum Related Pastimes on Number of Heritage Attraction Types Visited in the Previous 12 Months

	1 Museum Type		2 Museum types		3 Museum types		4 Museum Types		5 Museum Types		x^2 (df) Significance Cramer's V
	n	%	n	%	n	%	n	%	n	%	
Socio-demographic Characteristics											
Middle class index											
Upper quartile	22	**33.8**	18	**17.3**	25	**26.6**	11	**15.3**	1	**1.3**	*28.333 (12)*
Middle upper quartile	16	**24.6**	29	**27.9**	23	**24.5**	15	**20.8**	7	**7.8**	*p=.005*
Middle lower quartile	19	**29.2**	31	**29.8**	19	**20.2**	23	**31.9**	2	**9.5**	*.163*
Lower quartile	8	**12.3**	26	**25.0**	27	**28.7**	12	**31.9**	11	**52.4**	
Family Life Cycle											
single – no children at home	7	**12.3**	31	**31.0**	18	**19.4**	11	**15.7**	5	**25.0**	*15.579 (8)*
couple - no children	32	**56.1**	43	**43.0**	44	**47.3**	27	**38.6**	7	**35.0**	*p=.05*
dependent children	18	**31.6**	26	**26.0**	31	**33.3**	32	**45.7**	8	**40.0**	*.153*
Museum Related Leisure Pastimes											
Historical TV Fiction*											*26.749 (4)*
Not undertaken	40	**67.8**	51	**54.3**	32	**37.6**	25	**57.3**	3	**14.3**	*p< .000*
Undertaken	19	**32.2**	43	**45.7**	53	**76.2**	42	**42.7**	18	**85.7**	*Cramer's*
Read historical no fiction books											*V=.286*
Not undertaken	37	**56.7**	40	**38.5**	27	**28.7**	15	**20.8**	5	**23.8**	*23.311 (4)*
Undertaken	28	**43.1**	64	**61.5**	67	**71.3**	57	**79.2**	57	**76.2**	*p< .000*
Kept a collection											*.257*
Not undertaken	49	**75.4**	61	**58.7**	57	**60.6**	27	**37.5**	11	**52.4**	*20.963 (4)*
Undertaken	16	**24.6**	43	**41.3**	37	**39.4**	45	**62.5**	10	**47.6**	*p< .000*
Genealogy											*.243*
Not undertaken	58	**89.2**	85	**81.7**	68	**72.3**	49	**68.1**	11	**52.4**	*17.775(4)*
Undertaken	7	**10.8**	19	**18.3**	26	**27.7**	23	**31.9**	10	**47.6**	*p=.001*
History Education											*.223*
no study	51	**78.5**	75	**72.1**	72	**76.6**	45	**62.5**	11	**52.4**	*20.686 (8)*
formal education	12	**18.5**	24	**23.1**	9	**9.6**	16	**22.2**	7	**33.3**	*p=.008*
private study	2	**3.1**	5	**4.8**	13	**13.8**	11	**15.3**	3	**14.3**	*Cramer's*
											V=.170

N=360

** n=261 for this question due to missing cases and the exclusion of those respondents who had either not visited a museum in the past 12 months*

Museum socialisation, in terms of frequency of visits as a child with parents or school, was not found, however, to determine respondent's breath of museum interest (see Table 3.9). Further, there was little evidence to suggest that socio-demographic differences in the population had any relationship with the number of different heritage types visited. Education, social class, income, gender and age were not found to be contingent on the number of museum types visited by individuals in the previous 12 month period, and only a small effect on the number of heritage types visited was noted for family life cycle *(p=.05, Cramer's V = .153,* see Table 3.10). Table 3.9 shows that couples who had no dependent children were more likely to visit only one museum type (20.9%, compared to 15.7% of respondent's with dependent for single people with no children living at home); single respondents with no children at home were more likely to have visited 2 types of museum (43.1%, compared to 28.1% of those with dependent children and 22.6% of couples with no dependent children); and respondents with dependent children were more likely to have visited 4 different types of museum (27.8% compared to 15.3% of single respondents with no children at home and 17.6% of couples with no dependent children). These findings support other studies which have found a disproportional number of visitors to museum and heritage attraction have dependent children in their visiting group (e.g. Prentice et al 1988, McIntosh 1997, Hooper-Greenhill 1994, Prentice 1993a).

In contrast, to the above findings which demonstrate that social class related variables individually had little relationship with the number of heritage attraction types visited, Table 3.9 shows that the middle class index offers some limited inverse discriminative power in explaining the breadth of interest in heritage attractions *(p=.005, Cramer's V = .163).* Earlier in the present chapter the ability of the middle class index to capture the total composite effects of social class related variables was questioned. As was found previously the middle-class index and contrary to expectations, the present findings show that those respondents in the lower and middle-lower quartiles of the middle-class index have visited a

varied range of museum attractions in terms of the subject presented. These findings suggest that either the middle-class index is too crude in its representation of the composite dynamics of social class related variables, or, that respondents in the lower proportions of the middle-class index have over reported the range of museum attraction subject types they have visited.

3.3.2 The Effect of Museum Related Leisure Pastimes on the Number of Heritage Attraction Types Visited

Table 3.9 shows that the number of heritage attraction types visited was contingent on several museum related past-times. Those respondents who watched historical television fiction ($p<.000$, Cramer's V = .286); read historical non-fiction books ($p<.000$, Cramer's V =.257); kept a collection of somekind ($p<.000$, Cramer's V = .243); had undertaken genealogical activities (p.001, Cramer's V = .223); or had studied history formally or privately ($p=.008$, Cramer's V =.170), were found to have visited more museum heritage attraction types and as such could be said to hold a broader interest in heritage presented in museum settings.

3.4 Frequency of visiting museums per annum

The utility of disaggregating the demand for museums into simply visitors or non-visitors has been questioned for over a decade (Hood 1983, Merriman 1991, Davies and Prentice 1995). Table 3.10 shows the number of times respondents to the present survey visited a museum in the previous 12 months. Consistent with other studies, the frequency of visiting incidence reported in Table 3.10 reflects the number of times a respondent has visited a museum of any type and as such could also include repeat visits to the same museum.

Table 3.10: Number of Museum Visits in previous 12 months

	n	%
11 or more visits	*42*	**13.6**
5-10 visits	*79*	**26.2**
2-4	*109*	**36.1**
1 visits	*31*	**10.3**
No visits	*40*	**13.6**
Total	***302*** [7]	**100.0**

39.8% of respondents were found to have visited museums five or more times in the previous year, while only 10.3% of respondents had visited a museum only once. These findings support Hooper-Greenhill's (1994) assertion that the majority of museum visits are taken by a small proportion of the general population on a regular basis. Indeed, Davis (1994) has also noted that a significant proportion (50%) of visitors to local museums and galleries attended 6 or more times a year. Merriman (1991), in contrast, found that only 16% of the general British population visited museums between three and ten times per year and 2 % visited over ten times per year. By far the most prevalent rate of visiting in Merriman's (1991) study was found to be once a year (40% of the population). As might be expected, the present survey suggests that middle-class Edinburgh residents visit museums disproportionately more than the general British population.

3.4.1 The Effects of Socio-Demographics, Museum Socialisation & Museum Related Pastimes on the Number of Visits to Museums

Socialisation and a 'critical developmental age band' have been found to determine individuals' preferences for cultural products, such as popular music and cinema actors styles (Holbrook & Schindler 1994, Holbrook and Schindler 1989), suggesting that a combination of 'mere exposure effect' (Zajonc 1968) coupled with 'imprinting' via classical conditioning (Bierley et al 1985) to cultural products during childhood or adolescence are likely to determine those cultural activities preferred in adulthood.

[7] The sample size for question C07 is N=302, because this question was added once fieldwork had begun. This reduced sample contains a slightly higher proportion of indidividuals who had not visited in the previous 12 months (13.9%) when compared to the total sample (10.0%, N=400, question C06).

Equally, notions of socialisation and social class distinction built on cultural capital (Bourdieu 1984) similarly support the dependence found in the present study between frequency of museum visits and several indicators of middle class socialisation, including the number of trips to museum taken with family as child, the educational attainment of respondent's parents and self-rated social class.

Findings from the present survey show that the majority of respondents who were taken to a museum two or more times a year with their family (52.1%), currently visit museums over 5 times a year. In contrast, the majority of those respondents who were taken to museums once a year or less when they were children (67.6%) currently visit museums four times or less a year ($p<.000$, Cramer's $V= .261$)[8]. Further, in terms of social class identification, the majority (70.3%) of those respondents who in self-rating described themselves as 'working class' were found to visit museum less than 4 times a year. In comparison, a significant proportion of respondents who rated themselves as 'lower middle' (49.9%) and 'upper middle' (34.0%) in terms of class, were found to have visited museums more than 5 times a year ($p=.004$, Cramer's $V = .196$). A similar pattern was identified for the effects of the educational attainment achieved by respondents' parents on the frequency of current museum visiting. In particular, 65.8% of those respondents whose parents did not undertake higher education currently visited museums four times a year or less, compared to 57.9% of respondents whose parents were educated to degree or above who currently visit museums 5 or more times a year ($p=.003$, Cramer's $V = .240$). Clearly, the present study demonstrates that past socialisation impacts on current museum visiting behaviour.

[8] However respondents reports of the number of museum visits as a child are subject to recall bias and individuals who currently visit museums frequently may 'recollect' childhood trips disproportionately or overestimate there number. Subsequent Chapters show that the number of visits to museums as a child was not found to be related to the value or liklihood of experience opportunities perceived, which may be expected if people are overestimating their past behaviour to be consistent with present visiting incidence.

Table 3.11: The Effects of Socio-Demographics, Museum Socialisation & Museum Related Pastimes on the Number of Visits to Museums

	Number of visits in 12 months										
	0		1		2-4		5-10		11+		*Chi-sq statistic (df) Level of Significance Cramer's V*
	n	%	*n*	%	*n*	%	*n*	%	*n*	%	
Socio-demographics											
Family Life Cycle											
single	*7*	**17.1**	*2*	**6.5**	*29*	**26.6**	*19*	**24.1**	*16*	**38.1**	*19.403 (8)*
couple -no children	*24*	**58.5**	*21*	**67.7**	*56*	**51.4**	*35*	**44.3**	*11*	**26.2**	*p=.01*
dependent children	*10*	**24.4**	*8*	**25.8**	*24*	**22.0**	*25*	**31.6**	*15*	**35.7**	*.179*
Respondent's education											*25.389 (4)*
school or less	*22*	**53.7**	*9*	**29.0**	*21*	**19.3**	*16*	**20.3**	*5*	**11.9**	*p<.000*
higher ed	*19*	**46.3**	*22*	**71.0**	*88*	**80.7**	*63*	**79.9**	*37*	**88.1**	*.290*
Self-grade social class											
Upper middle	*4*	**10.0**	*7*	**22.6**	*22*	**20.6**	*7*	**9.5**	*10*	**24.4**	*22.498 (8)*
Lower middle	*13*	**32.5**	*15*	**48.4**	*51*	**47.7**	*47*	**63.5**	*23*	**56.1**	*p=.004*
Working class	*23*	**57.5**	*9*	**29.0**	*34*	**31.8**	*20*	**27.0**	*8*	**19.5**	*.196*
Parent's education											*16.301 (4)*
school or less	*30*	**83.3**	*20*	**66.7**	*56*	**53.8**	*38*	**52.8**	*17*	**41.5**	*p=.003*
higher education	*6*	**16.7**	*10*	**33.3**	*48*	**46.2**	*34*	**47.2**	*24*	**58.5**	*.240*
Museum Socialisation											
Visits with family as a child											*20.521(4)*
once a year or less	*32*	**78.0**	*21*	**67.7**	*72*	**66.1**	*46*	**58.2**	*14*	**33.3**	*p< .000*
2 or more times/yr	*9*	**22.0**	*10*	**32.2**	*37*	**33.9**	*33*	**41.8**	*28*	**66.7**	*.261*
Museum Related Leisure Pastimes											
Historical Non-fiction Reading											*25.023 94)*
Not undertaken	*23*	**56.1**	*19*	**61.3**	*40*	**36.7**	*24*	**30.4**	*6*	**14.3**	*p< .000*
Undertaken	*18*	**43.9**	*12*	**38.7**	*69*	**63.3**	*55*	**69.6**	*36*	**85.7**	*.288*
Kept a collection											*21.144 (4)*
Not undertaken	*37*	**90.2**	*19*	**61.3**	*66*	**60.6**	*45*	**57.0**	*18*	**42.9**	*p< .000*
Undertaken	*4*	**9.8**	*12*	**38.7**	*43*	**39.4**	*34*	**43.0**	*24*	**57.1**	*265*
T.V historical documentaries											*19.764 (4)*
Not undertaken	*19*	**46.3**	*9*	**29.0**	*22*	**20.2**	*12*	**15.2**	*5*	**11.9**	*p=.001*
Undertaken	*22*	**53.7**	*22*	**71.0**	*87*	**79.8**	*67*	**84.8**	*37*	**88.1**	*.256*
T.V historical fiction											*13.892 (4)*
Not undertaken	*25*	**61.0**	*18*	**58.1**	*52*	**47.7**	*36*	**45.6**	*10*	**23.8**	*p=.008*
Undertaken	*16*	**39.0**	*13*	**41.9**	*57*	**52.3**	*43*	**54.4**	*32*	**76.2**	*.214*
Private or formal history education											
none	*35*	**85.4**	*28*	**90.3**	*76*	**69.7**	*60*	**75.9**	*21*	**50.0**	*23.475 (8)*
formal education	*5*	**12.2**	*2*	**6.5**	*22*	**20.2**	*10*	**12.7**	*16*	**38.1**	*p=.003*
private education	*1*	**2.4**	*1*	**3.2**	*11*	**10.1**	*9*	**11.4**	*5*	**11.9**	*.197*
Genealogy											*10.531 (4)*
Not undertaken	*38*	**92.7**	*26*	**83.9**	*85*	**78.0**	*61*	**77.2**	*27*	**64.3**	*p=.03*
Undertaken	*3*	**16.1**	*5*	**16.1**	*24*	**22.0**	*18*	**22.8**	*15*	**35.7**	*.187*

As might be expected after considering the findings given above, a respondent's educational attainment, which is likley to be correlated both with past socialisation and parental education, was found to be dependent on the frequency of visits taken to museums. Table 3.11 demonstrates that more respondents with higher education qualifications visit museums frequently when compared to respondents who did not continue with their education beyond school. Table 3.11 shows that 53.7% of respondents without higher education had not visited a museum in the previous 12 month period, while 27.5% of those with higher education had visited 5-10 times a year and 16.2% had visited eleven or more times a year ($p<.000$, Cramer's V= .290). As has been noted earlier, other studies have museum visits as a middle-class preoccupation (e.g. Davis 1994, Prentice 1993a, and Merriman 1991). The present study finds supports for these earlier findings by showing a positive relationship between social class identification, social class socialisation and museum socialisation and the number of museum visits taken per year.

Although, it was not the objective of this research to determine the critical ages for museum preference formation, support for these effects can be indirectly assessed through the relationships identified between frequency of museum visits and museum-related leisure past-times. Museum-related activities were found to have a reinforcing effect coupled with a higher propensity to visit museums, notions consistent with viewing heritage as a stimulation good (Scitovsky 1978) as mentioned earlier. In the present survey, respondents who visited museums frequently were found to be more likely to read historical non-fiction books ($p<.000$, Cramer's V = .288); keep or have kept a collection of somekind ($p<.000$, Cramer's V = .265); watch historical television documentaries ($p=.001$, Cramer's V = .256); watch historical television fiction ($p=.008$, Cramer's V = .214); have undertaken private or formal historical study ($p=.003$, Cramer's V = .197) and have undertaken genealogical activities ($p=.03$, Cramer's V = .187).

In contrast to the above findings where current leisure pastimes and socialisation factors (in terms of the number of family visits) were found to differentiate respondents in terms of the frequency of museum visits, the present study found that other measures of museum and other cultural socialisation, namely, their interest in museum visits as a child, their parent's interest in museum visits when they were children and the number of visits with schools as children, were found to have no affect on the frequency of visits per year. Equally none of these factors were found to affect the use-occasions, number of different types of museum visited (breadth of museum interest) or whether a respondent had or had not visited a museum in the previous 12 months. Perhaps these findings are the result of respondents' rating of their own interest or that of their parents being subject to telescopic error or that the question asked was too vague. However, the inability of past school visits in the present study to discriminate middle-class respondents current museum visiting behaviour in terms of frequency, use-occasion, range of museum types visited and whether respondents had been to a museum in the previous 12 months, questions the increasing emphasis of cultural educationalists on the democratisation of museum recreational opportunities via school visits. Clearly, the findings from the present study that school visits do not compensate for a lack of museum socialisation by parents when the respondent was a child, are controversial and exploratory and future research needs to assess whether there are differences in the impact of school visits on current museum visiting behaviour which can be attributed to the respondent's age. This would take account of an increasing sophistication in the school based educational programmes offered.

3.4.2 The Effect of Life-cycle on Frequency of Museum Visits

Prince (1983) and Rapoport and Rapoport (1975) suggested that leisure needs and motivations change over time and that museums are likely to appeal in the 'establishment' period which is characterised by family based or group consolidating leisure needs. Partial support for these ideas was found in the present study. Table 3.11 shows that couples with

children visited museums more frequently in a 12-month period than couples who had no dependent children. In particular, 68.7% of couples *without* dependent children (68.7%) had visited a museum four or less times a year, while 48.8% of couples with children had visited a museum over 5 times a year (p=.01, Cramer's V = .179). However, Table 3.13 shows that single people were equally as likely as couples with children to have visited museums frequently. As such these findings provide partial support for the use of museum resources as a group consolidating or family based leisure activity by suggesting that they do visit museums more frequently than some other sub-groups of the population.

3.5 Patterns of Museum Visiting to Idea and Object Based Museums among Middle-Class Edinburgh Residents

While the findings reported above refer to general museum visiting, the present study was primarily concerned with the impact of the physical-designed (interpretative) environment on the anticipated experiential rewards offered in museum. As such, respondents were asked to report their past visiting behaviour to the idea and object-based museums, representing the interpretative media mixes used by The New and Old Museologies. Two measures of past visiting behaviour specific to the idea or object museum were assessed: visiting frequency (the estimated number of times over the last 4 years) and a measure of visiting recency (the most recent visit). These behavioural measures were consistent with recent studies that have examined the impact of past behaviour on current visiting intentions (e.g. Bagozzi and Kimmel 1995, Bagozzi and Warshaw 1990).

An index of *frequency* describes a general pattern over time whereas recency captures the respondent's last experience of visiting a museum. *Recency* was seen as an important additional measure of past behaviour capable of capturing aspects of abstractness or vagueness that were expected to accompany distal behaviour. Further, Bagozzi (1982, 1983) noted that recency of past behaviour had a specific impact on the level of specificity and complexity associated with attitudes towards giving blood. Bagozzi found that

attitudes formed on distal behaviour were holistic while attitudes formed on recent experience formed a complex and multi-dimensional structure.

Table 3.12 shows the incidence of visiting for the two contrasting styles of museum in terms of frequency and recency. Across the two museum styles, the majority (60%) of respondents had visited these styles of museums in the previous 12 months, with 41% of these visiting in the last 6 months. Of the 40% of respondents, who had not visited a museum in the previous 12 months, half reported visiting a museum of that style over two years ago. In terms of frequency a similar overall pattern was observed; 40.5% of respondents had been to a museum like the one shown in the pictorial collage once every two years; 17.0% had been to a museum of this type less than once every two years; while 9.5% had never visited. Cross-tabulation confirmed that those respondents, whose last visit was over 4 years ago or never (10.5%), were the same people who 'never' visit on average (9.5%), as might be expected. Compared to the frequency of reported museum visiting generally in the present sample, where 90.0% of respondents had visited a museum in the previous 12 months, the present findings show that visiting incidence to specific types of museums was lower than that reported for museums generally.

Middle-class respondents were also found to differ significantly in terms of their past experience of visiting the idea or object-based museum attractions (see table 3.12). In terms of recency of last visit, the majority of those who had *never visited* (87.5%) and those who had *visited in the last 2-4 years* (60.0%) were responding to the idea-based museum collage. In contrast, the majority of respondents who had visited in *the last 6 months* (60.3%), in the *last 6-12 months* (56.6%) and in the *12-24 months* (58.8%) were from the object-based museum sub-sample ($p<.000$, Cramer's $V=.26$). As such, those respondents in the object-based museum sub-sample had visited this type of museum attraction more recently than those

Table 3.12: Frequency and Recency of Visiting the Idea or Object-Based Museum

Recency of visits	Idea Museum	Object Museum
	%	%
in last 3 months	24.5	23.5
in last 6 months	13.5	20.5
in last 12 months	16.5	21.5
in last 2 years	18.0	21.0
in last 4 years	12.0	8.0
more than years ago	1.5	2.0
never	14.0	3.5
Total	100.0	100.0
	Chi-sq. statistic = 25.903, df = , p<.000, Cramer's V = .26	
Frequency of visits	%	%
10+ times a year	1.5	2.0
5-9 times a yr	4.0	9.5
2-4 times a year	27.0	29.5
once a yr	20.5	25.0
once every 2 years	16.0	12.0
< once every 2 yrs	16.0	18.0
never	15.0	4.0
Total	100.0	100.0
	Chi-sq statistic=19.852, df= , p=.003, Cramer's V=.22	

respondents in the idea-based museum had visited a museum framed within The New Museological paradigm.

This pattern was mirrored in terms of frequency of visits with visits to the object-based museum being more frequent than visits to the idea-based museum. In particular, cross-tabulation analysis showed that 78.9% of those who had *never visited* and 57.1% of those who had visited *once every two years* were describing their past frequency of visits to the idea-based museum sub-sample. In contrast, these analyses showed that the majority of those who had visited *over 10 times a year* (57.1%), had visited *5-9 times a year* (70.4%), had visited *2-4 times a year* (52.2%) or who had visited *once a year* (54.9%) were reporting their past visiting experience to object-based museums.

In terms of formal hypotheses, Chapters 1 and 2 noted that the idea-based museum or The New Museology should be superior to the object-based museum in terms of the valued-

expectations anticipated and, being considered more democratic in what history it presents and the methods of presenting this history, the gains in attractiveness of the idea-based museum attractions when compared to object-based museum attractions should be translated into higher visiting incidence. At a superficial level the measures of frequency and recency paint a competing story and suggests that factors other than value-contingent experiences and benefits are responsible for these differences in past visiting experience, suggesting the potential applicability of measures of behavioural control and constraints to understanding museum consumption. One possible reason for the findings of the present study is the prevalence of object-based museum styles in the Edinburgh area. However, as museum visiting was often confined to a holiday context, this can only be a partial explanation.

Merriman (1991), following Hood (1983), classified the British population into *'non-visitors'* (those who had never been), *'rare visitors'* (respondents who visited less than once every two years), *'occasional visitors'* (respondents who visited once every two years0, *'regular visitors'* (respondents who once a year) and *'frequent visitors'* (respondents who visited 2 times or more a year). Due to the small proportion of the present sample which fell into the frequency categories of '10+' and '5-9 visits a year', these categories were collapsed in subsequent analyses and in the remainder of the present study visitor status in terms of frequency of visits will be given in a manner consistent with Merriman (1991).

Interestingly, neither socio-demographic (age, gender, social class, education, income residential location) or socialisation factors (visits as a children with family or school, interest of child or parents, parent's education and occupation of father at aged 10 years) or museum related leisure past times could discriminate between respondents in terms of the recency or frequency of their visit to either the idea or object based museum. As such, factors which were found to affect general museum visiting incidence were not found to discriminate respondents in terms of the past museum visiting behaviour to either the idea or object-based museums. However, for the idea-based museum there were some limited

effects noted, where the middle-class index and parental educational attainment had a significant but limited affect on the frequency of museum visit in the idea-based museum (see Table 3.13). Table 3.13 shows that significant proportions of those respondents in the upper quartile of the middle-class index were non-visitors (26.4%), who had never been, or rare visitors (24.5%) who had been less than once every two years to an idea-based museum. In the middle lower quartile (43.3%) and lower quartile (41.2%) of the index, significant proportions of respondents were frequent visitors, who had been to these museums two or more times a year; while the majority of those from the middle upper quartile were regular visitors (28.3%), who visited once a year, or frequent (26.7%), who visited two or more times a year. These findings suggest that respondents higher in the middle-class index are likely to be non-visitors or rare visitors, despite the fact that indidividuals from higher social

Table 3.13: Effect of Middle-Class Index on Frequency of Visit (Visitor Status)

	Idea Based Museum										
	non-visitor		rare visitor		occasional visitor		regular visitor		frequent visitor		
	n	%	*n*	%	*n*	%	*n*	%	*n*	%	
Middle Class Index											
Upper quartile	*14*	**46.7**	*13*	40.6	*7*	21.9	*7*	17.1	*12*	18.5	$x^2=25.082$
Middle upper quartile	*6*	**20.0**	*9*	28.1	*12*	37.5	*17*	41.5	*16*	24.6	*df=12*
Middle lower quartile	*5*	**16.7**	*7*	21.9	*11*	34.4	*7*	17.1	*23*	35.4	*p=.01*
Lower Quartile	*5*	**16.7**	*3*	9.4	*2*	6.3	*10*	24.4	*14*	21.5	*Cramer's V= .204*

N=200

class and educational groups are known to have a greater disposition towards museum visiting (see Prentice 1993a and Merriman 1991 for reviews). Table 3.13 shows, however, that in the idea-based museum sub-sample respondents from the upper quartile of the index were found within non-visitors, rare visitors, frequent visitors and regular visitor groups. Despite earlier concerns regarding the middle-class index, these findings show that those individuals in the upper quartile of the middle-class index may not be similarly disposed to visiting idea-based museums. Qualitative research at stage 1 of the present study,

suggested that there may be a 'lifecycle' or 'backlash' effect to the immersive design associated with idea-based museum from those traditionalists who are familiar with the object-based museum style. Prentice et al (1997) has similarly noted the possibility of such phenomena, although little research to date exists to substantiate these ideas. As such, the earlier noted criticism of the middle class composite index could be unjustified and the middle-class index may be measuring potential backlash effects in the higher social classes to museum visiting generally associated with the increasing number and development of idea-based museum attractions. Further, it may be that the middle-class index captures the catalytic effects of the combination of social factors and as such is more discriminating than social class related variables individually in capturing the differing visiting dispositions within the middle-class sample. Clearly, if this is the case, the middle-class index is measuring more than the sum of its parts.

Earlier in this chapter the number of use-occasions respondents associated with museum visits was used as a proxy for the likely inclusion of museums in an individual's opportunity or evoked set. In terms of the idea and object based museums, the present study assessed whether these museums had been considered as a recreational opportunity in the previous 12 months. Respondents who had not visited an idea or object-based museum in the previous 12 months were asked if they had thought of visiting a museum like this during that period. The present findings revealed that the majority of non-visitors, rare visitors or occasional visitors [9](76.9% idea-based museum; 81.9% object based museum), had not thought about visiting a museum like the one shown in the collage during the last 12 months. Interestingly, the museum sub-sample to which the respondent was assigned did not affect the absence of either museum in the respondents' consideration set ($p=.495$, $df = 1$, $x^2= .467$), suggesting that social history and archaeology museum generally are not held in these respondent's consideration sets. These findings suggest that substantial communications effort would be required if the museum interpretative environment is to be used as a

[9] That is, respondents who went to these museums once every two years or less.

branding basis for New Museology and market development based on non-visitors, rare visitors and occasional visitor more generally. Further, these findings question the potential appropriateness of The Theory of Reasoned Action or Planned Behaviour for respondents who do not hold museums in their consideration sets and as such are unlikely to have recently evaluated the experiential attributes that are offered in museums. Overall, this study aimed to minimise the consideration set constraint by sampling the middle-classes who are more likely to include museums as part of their considered set of alternative leisure pastimes due to socialisation and social normative pressures.

An examination of the effect of residential location on the presence or absence of the idea or object-based museums in the consideration set of those respondents who had not in the previous 12 months, showed that residential location did not impact on the respondent's consideration set. This suggests that residential proximity or distance from these museums was not a contributory factor.

Summary and Conclusions

The present chapter examined museum past experience within a middle-class sample of Edinburgh residents. Findings revealed that museum visits were predominately associated with holiday recreational activities and that compared to the broader Scottish or British population, the middle-class sample examined were disproportionately higher in their use of museum visits as part of a day trip, compared to the general population.

Middle-class respondents were found to visit a broad range of heritage attraction subject types, providing support for Prince's (1983) notion of behavioural consistency in heritage consumption. However, although the over 90% of respondents interviewed had visited a museum in the last 12 months, findings in the present chapter revealed that a small proportion of the middle-class sample accounted for the majority of reported museum visits

per year. Further, the present chapter found that significant proportions of middle-class individuals associated museum visits with a limited number of use-occasions (e.g. as a day trip, for visiting friends and family, while on holiday, on a rainy day), and the present chapter highlighted potential market development gains obtainable from increasing the number of use-occasions respondents identify for museum visits.

As was expected from previous research focused on the social selectivity of heritage consumption, the present chapter found museum socialisation, general social class socialisation and present social class to be positively related to both the number of use occasions respondents associated with museum visits and the frequency of reported museum visits. These findings provide support for taste distinctions built upon 'cultural capital' (Bourdieu 1984), 'mere exposure effects' (Zajonc 1968) and 'classical conditioning' (Bierley et al 1985) and emphasise that social selectivity operates within the middle-class households, as well as in the distinction between white and blue-collar households. Interestingly, preferred general leisure attributes, gender, residential location, museum trips taken with the school and car ownership were not identified as 'causes' or structural determinants of museum visiting behaviour, in terms of either the frequency or number of use-occasions associated with museum trips. However, the presence of children was found to have a limited positive effect on the number of different museum subject attraction types and the frequency of museum visits taken in a 12 month period. Further, some initial evidence to support museum consumption as a 'stimulation good' (Scitovsky 1978), whose utility increases with increases in consumption, was found in the observed dependence between museum related leisure past-times and the range of museum subject types respondents had visited, the use-occasions respondent associated with museum trips and the incidence of museum visits in a 12 month period.

In terms of the two contrasting museum interpretative styles examined in the present survey, it was found that the majority (60%) of respondents had visited either an idea or object

based museum in the previous 12-month period. Neither museum attraction interpretative style nor residential proximity were capable of discriminating non-visitors on the basis of whether they had thought about visiting or held the museum in their recreation opportunity set, suggesting that museum interpretative environment has a limited role to play as a branding basis for democratising museum visiting within those middle-class members of the population who remain latent as non-visitors, rare visitors or occasional visitors. However, the two contrasting museum attraction styles, which were designed to reflect the Old and New Museological traditions, were found to differ significantly in terms of respondent's reported frequency and recency of visiting. A greater proportion of distal (i.e. less recent) behaviour was noted for past museum visits to the idea-based museum, while a greater incidence of frequent past visiting behaviour was observed for object-based museums. Socio-demographic and socialisation indicators (including frequency, use-occasion identification and breath of museum subject type visited), however, were found to be capable of explaining respondent's past experience of visiting either the idea or object-based museum. From these findings this chapter concludes that factors beyond the museum interpretative environment and the anticipated experiential opportunities promised by differing media-mix environments are responsible for museum visiting incidence. Overall, these findings highlight the potential applicability of the Theory of Planned Behaviour to understanding museum consumption; a hypothesis which is examined in Chapter 8.

Introduction

The last chapter examined past visiting behaviour to museums generally, and to the idea and object-based museum styles in particular. Whilst, demographic profiling and more recently the experiences gained by museum visitors have been used to supplement behavioural incidence data (see Chapter 3 for review), generally there has been a significant lack of attention to consumers' pre-visit experiences, or concerns, in the study of museum behaviour; that is, there is little understanding of the barriers and constraints that visitors have needed to overcome, or control, before they can realise any positive visiting intentions.

This Chapter aims to identify the range of pre-visit constraints and facilitators experienced by the middle-class residents of Edinburgh interviewed. Constraints and control were conceptualised to consist of external resource allocation, such as time and planning requirements; internal resources, including awareness and knowledge of museum attractions environments; and normative pressures to visit. As such, the constraints and facilitators examined in the present study were consistent with the perceived behavioural control (PBC) and subjective normative (SN) components of The Theory of Planned Behaviour (see Figure 1.1, Chapter 1).

In addition to establishing the extent to which middle-class Edinburgh residents are constrained or in control in terms of taking museum visits, the present Chapter seeks to understand the potential relationships among these constraints and facilitators, as latent dimensions, in order to establish the similarity of museum visiting constraints and facilitators to those identified in experiential consumption, leisure science, social psychology. For this reason, and because only minimal attention was given to these literature bases in Chapter 1, the present Chapter begins with an overview of pertinent literature useful for conceptualising museum-visiting constraints and facilitators. This review is seen to provide a solid

conceptual framework from which to operationalise control beliefs in The Theory of Planned Behaviour, while accounting for the contributions of leisure studies and consumer behaviour.

Furthermore, it was expected that the types of constraints experienced for the two contrasting museum styles may vary due to differences in geographic proximity and familiarity with idea-based museum attractions, at the time of the present study. This Chapter compares the idea-based and object-based museums across the eighteen constraint and facilitators identified from earlier qualitative interviews and finds that, for middle-class respondents, the museum anticipated environment, or museum attraction type does not impact on their pre-visit constraints or control.

Lastly, this Chapter highlights the potential 'determinants' of museum visiting constraints and control useful for developing programmes aimed at market development and to understand whether *'social structural constraints'* (Shaw et al 1991) exist for museum visiting within the middle-classes. In particular, the present Chapter will examine whether sub-groups of constraints and facilitators identified are contingent on socio-demographic, museum socialisation, museum 'use occasion' (or situational context of visiting), and museum-related pastimes (active interest in heritage).

4.1.1 Overview of Related Literature

4.1.1 Museum and Heritage Studies

As noted above, museum and heritage visitor studies have generally failed to ask questions regarding the factors visitors experienced as problematic and which they have needed to overcome before their visit or consumption experiences can be realised (e.g. Prentice et al 1998a&b, McIntosh 1998, Prentice et al 1997, Prentice 1997, Prentice and Light 1995). Similarly, little attention has been given to factors that make it easier and facilitate museum and other heritage visiting and consumption experiences. A limited number of notable exceptions exist, although, overall, these studies lack conceptual focus and development.

For example, focus group studies have identified facilitating factors to include personal recommendation and having been before (Cragg Ross and Dawson 1993), both of which have been found to be important factors in creating awareness (Brunt 1990). In terms of barriers to museum visiting, value for money, beliefs of how crowded the site was likely to be (Brunt 1990), children's influences and preferences (Cragg Ross and Dawson 1993), and disposable leisure time (Scottish Council Research Institute 1975) have been pinpointed as important in the decision to visit built heritage and tourist attractions by visitors, and as such can be identified as potential constraints which have been overcome in order to visit. Interestingly, studies have not found factors such as admission charges, distance travelled or novelty (i.e. not having been before) to be important to visitors in their decision to visit a museum, and as such these factors can perhaps be disregarded as visiting constraints or facilitators (Cragg Ross and Dawson 1993). Against this background, the present study aims to increase our understanding of museum pre-visit facilitators and constraints perceived and overcome by museum visitors and useful for developing programmes aimed at customer retention and increasing customer usage of museum and other heritage resources.

In addition to a general neglect of the pre-visit experiences of individuals who have been interviewed at museum and other heritage sites, as noted in Chapter 1, most research on heritage consumption has concentrated exclusively on the visitor and largely ignored the non-visitor and those individuals latent in the market profile of these institutions. Studies as such have missed the potential both for market development (Robinson 1989, Chamber 1984) and social welfare gains (Haukeland 1990, Witt and Goodale 1981) potentially obtainable through a more informed perspective of non-visitors' museum associations.

A small, and primarily ad hoc, series of primarily qualitative studies focusing on the museum non-visitors exists, and provides useful basis from which to inform our understanding of the pre-visit experiences of non-visitors. These studies, acting on calls for research to inform and address issues of access and cultural democracy, which have now been a principal concern for over a decade, have examined the cognitive and other situational barriers believed to limit or exclude large proportions of the population from public heritage

resources. Notable quantitative examples include Prentice, Davies and Beeho (1997) who found respondents cited reasons for not visiting different types of heritage attraction in the previous 12 months varied by attraction type and certain socio-demographic difference in the population; Prentice (1989) who examined visitors turning away from the gates of attractions and looked at price as a deterrent of visiting; Prince (1985a) who identified a negative relationship between unemployment and museum visiting; Prentice (1994b) who studied perceptual deterrents of museum visiting; Prince (1990) and Prince and Schadla-Hall (1985) who identified non-visitor perceptions (or images) of museums as factors influencing their decisions to visit; and Prince (1990) who examined non-visitors' suggestions for museum improvements likely to stimulate visiting. Together these studies have shown that lack of time is not a primary barrier to museum non-visiting (Prince 1985, Prentice et al 1997); that many of the reasons for not visiting measured in surveys have not been 'grounded' in the 'lived experiences' of non-visitors[1] (Prentice et al 1997); and lastly, that museums need to be more lively, provide things for people to do, be more entertainment-based, and to resolve their identity as a place where exhibitions are never changing, only for intellectuals and the 'old fashioned' (Prince and Schadla-Hall 1985, Prince 1990).

North American studies, interested in museum non-visitors, have added ease of access, parking, well-maintained facilities and well-dressed guards as constraining influences on museum visiting (Falk and Dierking 1992). Taken together, however, these quantitative studies have not generally been consistent or exhaustive in range of constraints experienced or anticipated by museum and heritage non-visitors. More pertinently, this research attention has not lead to systematic or conceptual classification or development in our understanding of the constraints perceived by individuals latent in the museum and heritage market profile.

Ad hoc qualitative studies have been far more exhaustive in the range of constraints identified (Cragg Ross and Dawson 1993, Cooper and Tower 1992, Scottish Tourist Board and ECOTEC 1992, Walsh 1991, Arts Council of Great Britain 1991, Durbury 1991, Walsh

[1] This was concluded on the basis that the reasons measured in this study were found to be generically unimportant as reasons for non-visiting.

1991, London Museum Council Consultative Committee 1991). For example, popular reasons for not visiting built heritage sites have included constrained domestic circumstances, lack of money and low morale leading to general debility, as well as lack of habit and not thinking of visiting, competition from other activities, lack of transport, negative perceptions of historic sites as *'ruins'* and *'always the same'* and *'only for tourists'* (Cragg Ross and Dawson 1993). Further responses included children not wanting to visit, bad childhood experiences, the possibility of bad weather, a lack of awareness, and no perceived urgency to visit attractions seen as permanent and unchanging. Interestingly, distance and admission prices have not been identified as absolute constraints for the heritage non-visitor; but with admission prices seen by some as presentable excuses used to conceal the actual reasons for not visiting.

Focus groups of arts non-participants have identified a similar profile of reasons and constraints for non-attendance (Cooper and Tower 1992, Arts Council of Great Britain 1992, System Three Scotland 1985) but have gone further to conceptually classify art related consumption constraints into a crude typology. This typology classifies constraints as *practical, educational* and *emotional.* Adding to the practical constraints identified above were those practical constraints of not owning a car, poor or no public transport, transport costs, security and reluctance to travel at nights, a lack of energy after work and baby sitter expenses. Educational and emotional constraints included those of perceived lack of educational introduction (socialisation), an inability to understand and perceptions of a class distinction.

Some evidence suggests that constraints and facilitators may vary by recreation attraction type and socio-demographic differences in the population. For example, museum, industrial heritage and theatre non-visitors were found to vary in the reasons given for their non-participation (Prentice et al 1997); while perceptions of crowding and the presence of children have been found to affect the type of tourist attraction visited (Brunt 1990). However, and somewhat contradictory, studies focused on behavioural consistency suggest that differences in facilitators and constraints across heritage attraction type may be small

and, where they exist, these differences may be insignificant in their impact on the visitor profile to heritage attractions generally (Prince 1983 &1990, Merriman 1991). Elsewhere, social class has been found to influence the number and type of trips taken (Brunt 1990) as well as interest in heritage (Prentice et al 1997), while access to transport and residential location (Merriman 1991, Prince 1983, Prentice 1993a, Thomas 1989), age (Prentice et al 1997, Merriman 1989, Prince 1985) and cultural factors including socialisation (Merriman 1991, Falk 1995, London Museums Council Consultative Committee 1991) have all been found to influence perceptions of barriers to museum participation. However, as yet insufficient case studies exist to substantiate these claims across a diversity of attraction types and situations. As such, this chapter will also examine if the extensive lists of constraints or facilitating factors identified in qualitative interviews differ by museum type or socio-demographic and museum related lifestyle differences in the present sample.

While the above mentioned studies offer insight into the antecedents of museum non-visiting behaviour, the conceptual basis of our understanding is limited with, for example, no distinction is made in the above lists between motivational reasons, which may be seen as related to preference, and other psychological, cultural and physical constraints. Further, the relationship between different types of constraints or their impact on motivation in constraining visiting has not been examined to date (Davies and Prentice 1995).

Overall, it seems that studies of museum and heritage pre-visit experiences for both visitors and non-visitors, although reflecting some increase in interest in more recent years, do not constitute a systematic, comprehensive and conceptual knowledge of museum non-visiting constraints or those constraints and facilitators experienced by individuals who visit museums. Conceptual frameworks need to be found elsewhere. The following sub-sections review pertinent literature from social psychology (section 4.1.2, sub-section (a)), leisure studies (section 4.1.2, subsection (b)), and experiential consumption (section 4.1.3, sub-section (c)) to explore the potential contribution of relevant conceptual frameworks to our understanding of museum pre-visit experiences. Further, museum facilitators and constraints identified as similar in the present study using factor analysis will be reviewed in

light of the conceptual categories developed in leisure studies, social psychology and experiential consumption.

4.1.2 Contributions from Experiential Consumption, Leisure Science and Social Psychology to Conceptualise Control Beliefs in *the Theory of Planned Behaviour*

As noted in Chapter 1, the *Theory of Planned Behaviour* is concerned with behaviour that cannot be considered as totally volitional, and under the complete control of the individual. The field developed as an extension of *the Theory of Reasoned Action* (Fishbein and Ajzen 1975), where behaviour had been conceptualised as volitional, in order to explain behaviour that was goal orientated and not totally under volitional control. In extending the Theory of Reasoned Action, Ajzen (1985) argued that in order for an individual to carry out some action (such as visiting a museum), he or she must have *control* in terms of the relevant resources and appropriate environmental opportunities. These studies focused on *The Theory of Planned Behaviour* (Ajzen 1985, 1991) have been principally concerned with the additional explained variance obtained from the inclusion of an individual's *perceived behavioural control* to the attitudinal and social normative influences of *Theory of Reasoned Action* (TRA).

The notion of 'perceived control' refers to the *ease* or *difficulty* with which a person perceives they can undertake the action of interest (i.e. visiting a museum) (Ajzen 1985 & 1991, Ajzen and Madden 1985). Elsewhere, other authors have similarly referred to *'facilitating factors'* (Trandis 1977), *' the context of opportunity'* (Sarver 1983), *'resources'* (Liska 1984) and *'action control'* (Kuhl 1985), and have supported their investigation in situations where there is less than perfect control over the behaviour (White et al 1994). To date, however, many academic empirical applications of The Theory of Planned Behaviour have been concentrated on social issues including for example, blood donation (e.g. Giles and Cairns 1995, Burnkrant and Page 1988, Bagozzi 1986) and contraceptive use (e.g. Kashima et al 1993), although more recently, recreational activities including recreational drug use, visiting the beach, cycling and taking physical exercise have been explored

(Bagozzi and Kimmel 1995, Norman and Smith 1995, Ajzen and Driver 1992, Ajzen and Driver 1991, Godin et al 1987).

The Theory of Planned Behaviour, like the Theory of Reasoned Action, appears to be paradigmatic in studies of non-volitional behaviour. Competing models do exist, but these have received far less attention in studies of non-volitional behaviour, and were not considered appropriate for the present study[2]. Competing models include Bagozzi and Warshaw's (1990) *Trying to Consume Model*, Bagozzi's (1992) *Theory of Self-Regulation* and Bagozzi's (1986) *Theory of Purposeful Behaviour.*

Trying to Consume (Bagozzi and Warshaw 1990) focused on notions of trying which were not explicitly recognised in Ajzen and Madden's (1985) conceptualisation of perceived behavioural control. Bagozzi and Warshaw (1990) suggested that evaluations of success or failure in trying are comparable to perceived behavioural control found in The Theory of Planned Behaviour because trying has motivational implications, in terms of anticipated success or failure, on an individual's intention (to try). In contrast the *Theory of Self-regulation* and *Purposeful Behaviour* are both concerned with the motivational content of belief evaluations consistent with those conceptualised by Fishbein and Ajzen (1975). The former theory concentrates on the role of desires as instigators of intention while the latter theory reconceptualises the evaluation measurement in terms of conditional approach or avoidance.

As noted in Chapter 1, in the Theory of Planned Behaviour, perceived behavioural control is thought to influence an individual's behaviour directly as well as indirectly, through an individual's intention to act (Ajzen 1985). In explaining the two effects of perceived control, East (1993) argued that when people have low perceived control they can either *try to* undertake the behaviour or they can give up and decide not to do it. The former situation

[2] Overall, the Theory of Planned Behaviour was seen as more appropriate for the study of museum behaviour than the Trying to Consume Model as museum behaviour was seen as more purposeful than goal-related and subject to trying.

results in a direct correlation between perceptions of control and the behaviour, while the latter only impacts on behaviour via intentions.

East (1993) notes, that the direct link between perceived control and behaviour will be especially evident in cases where the behaviour is driven by worry, social pressure or addiction and cannot easily be abandoned. For museum consumption, past non-visitor and visitor studies have not identified museum visiting as subject to worry or extremes of social pressure or addiction. Perceptions of control have been related to time constraints, lack of resources, lack of knowledge and lack of motivation. As such, within the Theory of Planned Behaviour, museum related control beliefs were expected to have a motivational impact on behaviour, and as such the impact of control beliefs on behaviour were expected to be mediated by intention. In this way, individuals who do not believe they have the resources to visit a museum are unlikely to form strong intentions, even if they hold strong positive attitudes. As such, the primary concern of this study concentrated on the motivational implications of perceptions regarding the ease or difficulty of visiting, or the direct link between perceived behavioural control and intention.

Conceptualising Perceived Behavioural Control

a) Contributions from Social Psychology

Ajzen (1985, 1988, Ajzen and Madden 1986) conceptualised perceived behavioural control (PBC) both as an estimate of the extent to which a person has control over performing a behaviour and as the person's assessment of his ability to perform the behaviour. Control beliefs, or the factors that can interfere with an individual's ability to perform a behaviour, have been identified as *'internal'* to the individual, including skills, abilities knowledge, required resources and adequate planning, as well as *'external'* to the individual including time, opportunity and dependence on others for co-operative behaviour (Ajzen and Madden 1986).

White et al (1994) have suggested that Ajzen (1985) was insufficiently clear in his definition of perceived behaviour control and have noted that the two meanings provided by Ajzen correspond to Bandura's (1982) distinction between *'efficacy'* and *'outcome expectancies'*. *'Efficacy expectancies'* reflect a person's judgement of whether they can perform the behaviour, and as such can be seen as the confidence individuals have that they will be able to perform the behaviour. In contrast, *'outcome expectancies'* refer to the extent to which an individual believes he or she can control the outcomes (White et al 1994). Moreover, White et al (1994) provided empirical justification for the conceptual distinction between self-efficacy and perceived control (or outcome expectancies) based on their differing effect on behaviour. Efficacy was found to be mediated by intention (Bandura 1977, Terry 1993), while outcome expectancies (perceived control[3]) were found to be unaffected by perceptions of self-efficacy and to influence behaviour directly (White et al 1994).

White et al (1994), in further developing our conceptual understanding of perceived behavioural control, also noted substantial measurement problems for perceived behavioural control or outcomes expectancies. White et al (1994) suggested that even if individuals are aware of events that may stop them from performing the behaviour, it may be difficult for them to provide a global assessment of these and as such there is likely to be measurement error in an assessment of control based on self-efficacy and outcome expectancies alone. To resolve these methodological deficiencies, White et al (1994) added *'planning'* as a more direct measure of actual control. 'Planning' was found to be mediated by intention and to have some weak but significant effect on behaviour.

It has also been suggested that PBC is linked to notions of internal and external locus of control (Ajzen and Madden 1985) and it has been suggested that PBC may vary by this personality construct (White et al 1994). However, few studies have endeavoured to measure locus of control in applying TRA and TOPB models. A notable exception includes the study of state versus action control in coupon usage by Bagozzi and Yi (1992). In assessing the effect of state versus action control on social normative influences and attitudes,

[3] White et al (1994) refer to outcome expectancies as conceptualised by Bandura (1982) as 'perceived control'.

Bagozzi and Yi (1992) found that the behavioural intentions of respondents with high levels of action control were directed primarily by attitudes, while for respondents with high state control, intentions were formed predominantly on social normative influences.

Overall, studies in social psychology have conceived perceived behavioural control to consist of three, possibly distinct, elements; namely, self-efficacy, outcome expectations and planning. Furthermore, these studies suggest that personality characteristics, such as locus of control, may have direct implications for the amount of control perceived by indidividuals.

b) Leisure Constraints Research

Studies concerned with *constrained leisure* (Jackson 1991, Jackson 1988) have developed a substantial research base in the study of outdoor and other leisure participation in North America and Canada in particular. To date, however, these studies have not generally extended to cultural recreation, or museum and heritage sites, and have tended instead to concentrate on perceptions of constraints at an aggregate level (i.e. across a number of physical recreation facilities generally) (e.g. Jackson and Witt 1994, Hultsman 1992, Shaw et al 1991, Searle and Jackson 1985, Godbey 1985), and only to a lesser extent has there been a focus on specific recreation activities (e.g. Backman and Wright 1993, Jackson 1983). As a result conceptual models in the study of contained leisure tend to be generalised, rather than activity-specific models.

The major focus of research into non-participation in leisure recreation has been on *'constraints'*, as those factors that preclude or inhibit participation (Jackson 1988), and more recently, as factors that interact with preferences, diminishing either the desire to participate or the perceived opportunity to participate in leisure activities (Crawford et al 1991, Jackson 1990). Since the early 1980's, leisure studies have used the terms *'barriers'*, *'constraints'* and *'other reasons for non-participation'* interchangeably to refer to factors that inhibit or preclude participation (Jackson 1993). Some authors have now offered distinction between

barriers, as those factors which intervene between preference and participation and which inhibit participation, and *constraints,* as factors that interact with preference and which are more difficult to overcome (Raymore et al 1994). In the present study constraints will be used as a generic term to refer to barriers, constraints and other reasons for non-participation, unless otherwise disaggregated.

Within this literature base several conceptual distinctions, useful for furthering our understanding of museum control beliefs, have been developed: Godbey (1985) proposed that a 'hierarchical' distinction exists amongst constraints, and identified awareness of facilities as a pre-eminent constraint in precluding participation. Similarly, Jackson and Searle (1985), Shaw et al (1991) and Kay and Jackson (1991) classified 'blocking' and 'inhibiting' constraints according to their ability to totally preclude participation, with inhibiting constraints that do not totally preclude participation, seen as more subject to short-term managerial initiatives. In contrast, other authors have distinguished between 'temporary' and 'permanent' constraints according to their ability to limit participation over time (Iso-Ahola and Mannell 1985, Dunn 1980); 'external' or 'internal' constraints according to whether they are attributable to the individual or wider environment (Searle and Jackson 1985a, Howard and Crompton 1984); and 'social', 'psychological' and 'physical' to distinguish between those constraints that are attributable to social influences, to the individual, or to external resources (Iso-Ahola and Mannell 1985).

Most interesting for the present study has been more recent discussion of the relationship between constraints and preference or attitude formation (Raymore et al 1993, Crawford et al 1991, Crawford and Godbey 1987). Crawford et al (1991) and Crawford and Godbey (1987) distinguished three types of constraints, including intrapersonal, interpersonal and structural, based on their relationship between leisure preferences and participation. Recently other studies have confirmed the validity of this typology using confirmatory factor analysis (Raymore et al 1995 and 1993). 'Intrapersonal' constraints were conceptualised as those constraints that determine preferences and influence motivation. Intrapersonal constraints have been seen to include, for example, stress, depression, personality characteristics,

perceived skill and subjective evaluation of the appropriateness of the activity. Intrapersonal constraints, as such, represent an individual's psychological attributes that interact with leisure preferences[4]. Studies, for example, have found that individuals with low self-esteem feel more leisure constrained (Raymore et al 1994), while those with an external locus of control, generally identify more external constraints than other respondents (Backman and Crompton 1990). These studies provide support for the earlier noted suggestion by White et al (1995) that perceived behavioural control may vary by certain personality constructs.

'Interpersonal' constraints, in contrast, *'result from interpersonal interaction or the relationship between individuals' characteristics'* (Crawford and Godbey 1987, p 123) and have been seen to include the need for partners or friends to participate in an activity as well as reference group norms. Interpersonal constraints have been found to determine preferences as well as intervene between preferences and participation. As such, it seems reasonable to suggest that interpersonal constraints which determine preference are similar to notions of social norms (Fishbein and Ajzen 1987) and other cultural constraints or cultural capital (Merriman 1991, Bourdieu 1974), while interpersonal constraints, which intervene between preferences and participation, include the need for recreation partners or other co-operative behaviour.

'Structural constraints' were conceptualised by Crawford et al (1991) as those intervening variables that occur between positive preference formation and actual participation. Structural constraints have been the major focus of leisure constraint research since it's conception (Crawford et al 1991), and include, for example, lack of time, lack of transport and costs.

[4] Other authors have similarly been concerned with the relationship between leisure constraints and preference formation. For example, Jackson (1990) and Henderson et al (1988) have distinguished between 'antecedent' and 'intervening' constraints by their relationship to preference formation. Henderson et al (1988) defined antecedent constraints as *"attitudes associated with an a priori recreation situation such as personal capacities, personality, socialisation facets, interest etc."*, while Kleiber and Dirkin (1985) included an individuals' predisposition to experience leisure, simulation seeking or avoidance, attention style and socially based traits such as achievement motivation and locus of control as antecedent constraints. All authors appear to agree that intervening constraints are consistent with the structural constraints defined by Crawford and Godbey (1987).

Of particular conceptual interest to understanding the impact of constraints on intention, and a neglected issue in our understanding of perceived behavioural control, is the concept *'constraint negotiation'* (Jackson et al 1993 & 1995, Scott 1991, Crawford et al 1991, Henderson et al 1995, Shaw et al 1991, Kay and Jackson 1991) in leisure studies. *Constraint negotiation* is similar and developed from earlier ideas of *'resourcefulness'* (Witt and Goodale 1981, Rapoport and Rapoport 1975) in leisure participation and non-participation studies. Resourcefulness refers to the capacity of individuals to identify their barriers to leisure and their ability (or skill), and the strategies they adopted, to overcome these barriers in order to ensure that participation was not excluded. These conceptual developments arose from empirical findings that challenged the fundamental basis of leisure constraint research or normative *opportunity theory* (Rosma and Hoffman 1980). *Opportunity theory* states that if barriers to leisure are identified and programmes developed for their removal, all individuals should have an equal propensity to participate in leisure. What is noticeably lacking from opportunity theory is a proviso for the theory to be subject to differences in individual's preferences. However, based on opportunity theory, leisure constraint research has presumed there to be a positive relationship between the number of perceived constraints and non-participation in much the same way as The Theory of Planned behaviour has presumed a positive relationship between perceptions of control and positive behavioural intention.

Beginning in the mid eighties, but only gaining popularity and increased research attention in the 1990's, studies have noted that participants of leisure activities often cited a higher number of perceived constraints compared to non-participants. Further, members of certain socio-economic groups (and in particular the more educated) were found to cite higher levels of constraints (Kay and Jackson 1991, Shaw et al 1991, Searle and Jackson 1985) than would be suggested by opportunity theory. As such, participation or lack of it was no longer considered enough to identify whether or not constraints were experienced by individuals (Kay and Jackson 1991, Shaw et al 1991).

In developing these ideas, Jackson et al (1993) proposed a balance theory to explain the dynamics of constraint negotiation and resourcefulness. He suggested that there needs to be at least a balance between positive motivation and the level of interpersonal and structural constraints perceived in order for constraint negotiation to occur. Where there is not a balance between positive motivation and the level of constraints perceived, non-participation would result. Together, concern with resourcefulness, constraint negotiation and balance theory, have highlighted the need to disaggregate behavioural responses in leisure beyond that of participation and non-participation, and instead, to include levels of participation (Jackson et al 1993). Further, these ideas suggest that measuring perceived behavioural control may be methodologically flawed in the Theory of Planned Behaviour. Here individuals who have more control and who belong to higher socio-demographic sub-groups of the population are likely to over-report their level of perceived control. Further, the ideas associated with constraint negotiation suggest that the mechanisms or strategies used by individuals who are successful constraint negotiators need to be examined. This latter idea offers a potential useful area of future research both for understanding latent museum demand and for developing our conceptual understanding of perceived behavioural control in The Theory of Planned Behaviour.

Other Methodological Deficiencies in Measuring Constraints and Control

Some explanation for the greater number of constraints reported by respondents in higher educational and social class groups can be found in other methodological discussions in constraints research. In particular, and perhaps not surprisingly, Shaw et al (1991) found that the perceived constraints cited by respondents dealt only with constraints individuals were consciously aware of. Shaw et al (1991) stressed the importance of sub-group analyses to identify *'social structural constraints'* that may not be readily perceived by respondents as causes of their non-participation. Shaw et al (1991) found that social structural constraints such as household type, occupational status and income, exhibited a stronger relationship with participation than the number constraints verbalised by respondents, while Crawford et

al (1991) suggested that individuals with lower socio-economic status are more likely to perceive intra-personal constraints. In addition, but related to socio-demographic sub-group analysis, Jackson et al (1988) and others (Mannell and Zuzanek 1991, Nisbett and Wilson 1977) have noted that lack of money and time are not barriers but excuses for non-participation, perhaps due to individuals' inability to verbalise or recognise the factors which truly inhibit their behaviour.

Together, these studies suggest the appropriateness of understanding whether sub-groups of the population vary in the constraints they describe. In this way the origins of constraints can be identified and incorporated into long-term plans for museum audience development. Furthermore, it might be expected that socio-demographic differences in the population found to mediate the relationship between perceived control and intention. This mediation would be anticipated in the magnitude of the relationship observed between perceived behavioural control and intention as well as in the structural composition of the control beliefs held. In the latter case, it would be hypothesised that individuals from lower socio-demographic groups would hold more holistic and less complex control belief structures than individuals from higher socio-economic groups.

Comparisons between Notions of Leisure Constraints and Perceived Behavioural Control

From reviewing the literature on both perceived behavioural control and constrained leisure, it seems at a general level that the two concepts (PBC and leisure constraints) are somewhat similar. However, closer examination of work in both literature bases reveals differences which are important in both conceptualising the similarity of museum visiting constraints or facilitators identified, and in terms understanding the basis on which the present study operationalises TOPB for museum visiting intentions in Chapter 8.

Recent studies in leisure science (and outlined above) have described antecedent or *intrapersonal* constraints as equivalent and to include personality and skill deficiencies, as well as other motivational-based constraints associated with negative beliefs such as the

quality of facilities (e.g. Jackson et al 1993, Tian et al 1996). Leisure science literature in terms of intrapersonal constraints does not separate attitudinal based beliefs (expectancy-value) and control beliefs as proposed in the Theory of Planned behaviour. Only the personality and skill-deficiency antecedents or intrapersonal beliefs are consistent with notions of perceived control within the Theory of Planned Behaviour framework. It could be argued that intrapersonal constraints in leisure sciences (e.g. the quality of facilities) are motivational-based constraints and may be better conceptualised as the determinants of attitude within the Theory of Planned Behaviour framework. For this reason notions of constraint, in leisure sciences, and perceived control, in social psychology, cannot be considered equivalent and the field of leisure constraint research can be seen to extend beyond notions of perceived behavioural control, as identified in the Theory of Planned Behaviour, by mixing the antecedents of attitude and perceived control. In the present study all attributes or consequences associated with the museum visiting experience are considered to be attitudinal beliefs. These will be examined as part of the expectancy-value model of attitudes and discussed in Chapters 5, 6, and 7.

Further, while Theory of Planned Behaviour (TOPB) suggests that control beliefs do not interact with preference formations (attitude) but only with intention in influencing behaviour, *'antecedent'*, *'interpersonal'* and *'intrapersonal'* constraints from leisure sciences are classified by their impact on preference formation. Again, this adds support to the present argument that constraints, from leisure sciences, and control, from social psychology, are not directly comparable. However, it also suggests that the addition of cross-over effects between 1) control beliefs and attitudes; 2) between expectancy-value beliefs and general perceptions of control; 3) between social normative beliefs and attitude; and 4) between expectancy-value beliefs and general social normative influences, in the Theory of Planned Behaviour would render the two literature bases more comparable.

To summarise, notions of perceived control and leisure constraints are not considered to be equal. The two literature bases vary both in terms of their conceptual meaning and empirical relationship with preference, for example. As such, this study concentrated on measuring

study concentrated on measuring constraints that were not attitudinal based. Social norms, which would be conceptualised as a type of interpersonal constraint in leisure sciences, will be kept distinct in line with current conceptualisation of The Theory of Planned Behaviour and will be considered as in later sections (sections 4.6 and 4.7) of this Chapter. Intrapersonal constraints (individual psychological) will be concerned with ideas of self-efficacy, while structural constraints will include planning and resource allocation in terms of time, money and transportation. Furthermore, 'constraints' will be used to refer to all factors beyond negative attitudes that inhibit or preclude museum participation, while factors, which have a positive effect on the propensity of an individual to visit a museum, will be referred to as perceived control because of their facilitating role in behaviour. In this way, museum perceived control could be seen to include the absence of constraints, such as lack of transport, as well as the addition of positive influence, such as being recommended by a friend. Pertinently, for the present study which combines the contributions of leisure science and social psychology, conceptualised in this way, and particularly by excluding experience attributes and social norms, museum *constraints* and *control* can be seen as operating along one continuum, from *impediments* to *facilitation.*

c) Studies in Experiential Consumption

Over a decade ago, Hirschman and Holbrook (1986) suggested that consumers bring *'resources'* to consumption contexts that affect the consumption experience they derive (Hirschman and Holbrook 1986). These *'resources'* were seen to include both personality traits as well as time and money and, being described as both 'powers' and 'liabilities', were conceived as positive and negative in their impact on the consumption experience. Although there are similarities between constraints and control and experiential resources, to date there has been a significant neglect in empirical attention to the resources individuals bring to consumption experiences and no attempt to empirically validate the typology of resources offered by Hirschman and Holbrook (1986).

In order to both understand the methodological implications of investigating consumption experiences and to describe their potential impact on the consumption experience, Hirschman and Holbrook (1986) suggested that four types of *resources* (powers and liabilities) could be distinguished according to whether they were *internal* (and originating from the person) or *external* (and originating from the wider environment); and *static* (and capable of measurement at any particular moment) or *dynamic* (and observable as a flow in some process that evolves over time) (Hirschman and Holbrook 1986, p225). Accordingly, financial resources were classified as external and static; time, as external and dynamic; ability, as internal and static; and effort, as internal and dynamic.

In terms of the relationship between experiential resources and notions of constraints and perceived control there are clearly several parallels. Intrapersonal and perceived self-efficacy constraints or control are internal and predominately static, while outcome expectancies, structural and interpersonal constraints are external and vary in terms of their dynamic and static nature. Chapter 8 will examine the impact of perceived resources as measured by constraints and facilitators on the expected experiences of respondents, while this chapter will concentrate on the utility of the conceptual classifications offered by Hirschman and Holbrook (1986) to understand museum resource requirements.

4.2 Museum Constraints and Control Beliefs Held by Middle-Class Residents in Edinburgh

Eighteen physical, social and psychological resources were derived from those most frequently mentioned constraints or facilitators found in qualitative interviews and were included in the quantitative schedule. Using seven point scales, respondents were asked to rate the probability that they would need each of these eighteen physical, social or psychological assets in order to visit a museum like the one pictured in the photographic collages in the coming 12 month period. The location of each museum collage shown to respondents was not explained. This ensured that perceptions of constraint or control

measured in the present study were based on the individual's assessment of their generic ability to visit these styles of museum rather than a specific attraction[5].

Physical, social and psychological assets which respondents thought they were likely to need were considered as constraints. The absence of these constraints, that is, where these assets were considered unnecessary or where there was a low need probability attached to them, indicated perceptions of control in terms of visiting that museum style. As such, asking respondents if they needed certain physical, social or psychological assets in order to visit museums is capable of both assessing the extent to which individuals felt constrained (as conceptualised in leisure sciences) and if they have low levels of perceived behavioural control (as described by the Theory of Planned Behaviour). Alternatively, when respondents felt that they were not constrained, they were believed to be expressing control over these resources and were seen to have high levels of control beliefs.

Table 4.1 profiles the extent of hindrance or facilitation experienced by respondents for both museums studied. Generally, *'needing to know your companions would enjoy it'* was the most constraining factor on visiting either museum with 57.6% of respondents stating that it was extremely or quite likely that they would need this in order to visit a similar museum in the next 12 months. This finding indicates the potential leverage social companions have on visiting and suggests the need for museums to effectively promote and develop social experiences.

Social risks associated with museum visits are likely, however, to be linked to a lack of awareness and certainty of what can be expected which creates insecurity on behalf of the

[5] In the local area at the time of data collection, museums in central Edinburgh were generally object-based in their interpretative style. Idea-based museums are available in the region but these were not based in the city centre. Clearly asking respondents about their perceptions of constraint or control over a 12 month period suggests that both museum visiting on holiday and at home were captured in the present study. As such, the availability of the idea and object based museum in the Edinburgh area was not considered to be problematic in terms of research design.

Table 4.1: Comparison of Idea and Object Based Museums on Constraints & Facilitators

Museum Constraints-Facilitators	Extremely Likely to Need %	Quite Likely to Need %	Slightly Likely to Need %	Neither Likely or Unlikely to Need %	Slightly Unlikely to Need %	Quite Unlikely to Need %	Extremely Unlikely to Need %	Chi-sq (df) significance *Cramer's V*
Intrapersonal Factors								
know something about the museum	10.5	32.5	23.5	5.5	6.8	8.0	13.0	NS
prior knowledge of subjects covered	5.3	20.3	20.5	10.0	11.5	14.8	17.5	NS
companion will enjoy	12.3	45.3	20.0	8.0	3.5	3.0	8.0	NS
more interest in social history								12.779 (6) .05 .179
idea-based museum	2.5	13.0	15.5	11.5	10.5	14.5	32.5	
object-based museum	6.0	14.0	17.5	15.0	10.5	18.5	18.5	
Time & Planning Factors								
know on for a limited time	17.0	33.8	19.3	8.5	3.5	6.5	11.5	NS
see advertised								14.438 (6) .02 .19
idea-based museum	13.5	41.0	18.5	8.0	5.5	3.5	10.0	
object-based museum	11.0	31.0	23.5	7.0	7.0	12.0	8.5	
time to go	24.0	31.5	12.5	3.3	5.5	8.3	15.0	NS
need a few spare hours								21.029 (6) .002 .229
idea-based museum	13.0	48.5	19.5	1.5	3.0	2.5	12.0	
object-based museum	14.0	41.0	20.0	8.0	5.5	6.5	5.0	
change schedule	5.0	18.3	15.5	13.0	7.8	10.8	29.8	NS
time and energy to plan for visit	6.0	21.0	24.5	10.0	9.3	12.0	17.3	NS
Structural Resource Allocation Factors								
transport to get there	10.3	10.3	7.3	4.0	4.8	13.3	50.3	NS
not too tired	11.0	27.0	18.0	9.0	8.8	8.3	18.0	NS
know not expensive	15.5	29.5	19.8	8.5	5.0	9.3	12.5	NS
park easily	19.0	21.0	14.3	24.8	4.0	5.5	11.5	NS
Situational-Irrelevance Factors								
feel it is not a touristy thing to do	2.3	6.8	10.5	27.5	7.5	15.5	30.0	NS
needs to be a rainy day	1.5	4.3	10.5	15.5	6.8	18.3	43.3	NS
Interpersonal Factors								
be told by a friend how good it is	2.5	18.5	22.0	13.3	10.0	15.5	18.3	NS
need someone to go with	4.3	16.8	14.0	10.3	8.5	13.3	33.0	NS

Idea Museum n = 200 Object Museum n = 200

individual as to the appropriateness of the museum visit for a group outing. Findings in the present study suggested this might be the case with 42.4% of respondents stating that it was extremely or quite likely that they would *'need to know something about the museum'*. However, the knowledge or awareness base required by individuals in the present study was

not found to be specific but was general in nature, with only 23.3% of respondents citing that it was extremely or quite likely that they would need *'prior knowledge of the subjects covered in the museum'*. This need for general rather than specific information appears to be consistent and support Prince's (1983) findings of behavioural consistency in heritage visiting. Further, these findings suggest that museums need to provide general assurance to potential visitors in promotional literature regarding the type of experiences and environment they can anticipate. Knowledge and awareness can be considered an *intrapersonal* constraint as conceptualised in leisure sciences and are associated with notions of *self-efficacy.*

It seems likely that interest in museum visiting generally and in social history museums in particular would be another type of *intrapersonal* constraint. Interestingly in the present study of middle-class residents, interest-related intrapersonal constraints were not found to be particularly prevalent in either style of museum examined. For example, in the idea and object-based museums only 15.5% and 20.0% of respondents respectively identified that it was extremely or quite likely that they would *'need more interest'* in order to visit the museum. In fact, a significant minority of respondents thought it was extremely (25.5%) or quite *unlikely* (33.0%) that they would need more interest in the either of the museums, demonstrating high levels of intrapersonal interest-related control as would be expected in the middle-class basis of the present study. Further, these findings are not surprising when the fact that 90% of the present sample had been to some type of museum in the previous 12 month period (see Chapter 3).

Looking at Table 4.1, the findings associated with intrapersonal interest control highlight perceptions of self-efficacy and skill were particularly high in the idea-based museum; 47.0% of respondents in the idea-based museum thought it was extremely or quite likely that they had the interest to visit this museum, while a further 10.5% thought that it was slightly likely that they had this interest resource. In the object-based museum slightly fewer respondents thought it was extremely or quite likely that they had the interest resource (37.0%, p=0.5,

Cramer's V=.179). The differences observed between the idea and object based museum *(p=.05, Cramer's V = .179)* highlight the somewhat greater accessibility of the idea-based museum in terms of interest compared to the object-based museum, consistent with the hypotheses of the New Museology (see Chapter 1).

Time and the need for an external stimulus to prompt visiting were identified as the second most constraining variables, and indicated a fairly myopic disposition where respondents need the encouragement of a limited time frame or an advertisement to motivate visiting. For example, 50.8% of respondents stated that it was extremely or quite likely that they would need to know the exhibition was only available for a limited time in order to visit. In effect, this results in the continual deferment of visiting resulting from perceptions that the resources will always be available, which has also been reported in qualitative interviews for built heritage in Scotland (Dawson et al 1993). Together these time and stimulus orientated constraints are consistent with notions of structural (Godbey and Crawford 1987) or antecedent (Jackson 1990, Henderson 1988) constraints in leisure sciences, outcome expectancies (Bandura 1982) in social psychology and external-dynamic resources (Hirschman and Holbrook 1986) in experiential consumption. That these factors are perceived to be beyond the control of the individual suggests the onus of change or ability to develop the market rests easily within the control of museum managers who must ensure that permanent exhibitions and museums generally should continue to promote themselves as continually changing.

In addition to the sense of urgency necessary to prompt visiting, the present findings highlight the importance of a high promotional presence required to possibly remind individuals that the museum resources are available and relevant to them. For example, Table 4.1 shows that of those respondents in the idea-based museum sub-sample, 54.5% thought it was extremely or quite likely that they would need to see the museum advertised in order to visit. Similarly, in the object based museum sub-sample, 42.0% of respondents thought this would be the case. Further support for the importance of stimuli in prompting

visiting can be found in that 43.0% of respondents thought it was to some extent likely that they would need to be told by a friend how good it was in order to visit. However, these findings do not indicate whether the reliance respondents place on advertising is as a means of informing themselves, which would suggest an intrapersonal constraint, or as a deficiency on behalf of museums, leaving respondents unaware of what is available to them and which would imply an external or structural constraint.

Other constraints identified in the present study were related to the effective allocation of time. In particular, 55.5% of respondents cited that it was extremely or quite likely that they would *'need to find the time to go'*, while 61.5% of respondents in the idea-based museum and 41.0% of respondents in the object-based museum felt that it was extremely or quite likely that they would *'need to know they had a few spare hours'* in order to visit. Interestingly only a small minority of individuals highlighted a strong need for planning (27.0%) or having to change their schedule (23.3%) in order to accommodate a museum visit. This suggests that the time concerns observed are related to the museum image as a formal recreation past-time which requires a significant input of time rather than as a casual recreational pursuit where a high number of repeat visits can use up half an hour of spare time or a lunch break, for example. Further, the awareness and stimulus motivation constraints mentioned earlier and ideas of continual deferment seem consistent with the notion of the museum as a formal recreation activity. Interestingly, time has described as a dynamic external constraint in experiential consumption (Hirschman and Holbrook 1986). *'Finding the time to go'* and *'needing a few spare hours'* are comparable with this and also with the notion of dynamic antecedent constraints (Jackson 1990). However, planning and re-scheduling appear to be more intrapersonal (Crawford and Godbey 1987) and self-efficacy based (Bandura 1982) constraint-facilitators, likely to be linked with personality characteristics and self-perceptions of time management. Clearly, although these constraint-facilitators are all related to time issues, there appears to be a conceptual distinction highlighted when the typologies previously discussed are applied.

Financial and other situational costs or convenience constraints are classified as *structural* or *antecedent* constraints in leisure sciences and are seen to directly intervene between preference and behaviour. In the present study, 40.5% and 40.0% of respondents thought that it was extremely or quite likely that they would *'need to know the museum visit was not expensive'* and *'that they would be able to park easily'*, respectively. Focus group studies with heritage non-visitors concluded that admission prices were not a significant constraint on visiting (Cragg et al 1993). The present study revealed that lack of money was a constraint felt by respondents, suggesting perhaps that significant proportions of middle-class residents are likely to be price sensitive and would not be willing to visit museums if there were unreasonable changes to present pricing policies or perceptions of value for money. Future research should seek to investigate the psychological bases of museum pricing.

During the qualitative interviews it was noted that museum visits were not considered relevant or appropriate to several residents as a valid recreational pursuit. Museum visits were referred to as primarily a tourist resource or an activity reserved for a rainy day when other activities, particularly, outdoor activities, could not be enjoyed. As might be expected due to the middle-class basis of the present sample, 68.4% and 53.0% of respondents thought that it was unlikely that *'it would need to be a rainy day'* or that *'they would need to feel it was not a touristy thing to do'*. These two constraints could be considered as situational-irrelevance constraints as they suggest in the first instance that museums are reserved as a recreational activity when there are no other alternatives available, and secondly they suggest that respondents do not like to associate museum visiting with mass tourism.

Situational-interpersonal constraints and the need for partners or co-operation in realising museum visits were not considered by respondents in the present study as problematic, despite being identified as prominent barriers in leisure recreation studies where the activity has required co-operative or companion-based participation. In particular, 54.8% of respondents surveyed in the present study stated that they did *'not need to find someone to go with'*. Despite the earlier finding that the majority of respondents felt that they need *'to*

know that their companions would enjoy it' (57.6%, see table 4.1), the present study suggests that respondents have the social resources in terms of companions required to visit museums. This is perhaps unsurprising in that the group composition of museum visitors is often family based (McIntosh 1998, Hooper-Greenhill 1994, Prentice 1993a).

Elsewhere, accessibility of transport and issues of convenience have been found to determine visits to heritage attractions (e.g. Prentice 1989, Thomas 1989). In the present study, however, respondents did not feel that access to transport posed any significant barrier to their ability to visit museums. In particular, 50.3% of respondents cited that it was extremely unlikely that they would need to find transport to get there and overall 67.3% of respondents felt that it was to some degree unlikely that they would need this resource. These findings are likely due to three factors: firstly, these findings are likely to be effected by the middle-class sample basis and the corresponding high degree of car ownership, particularly for those respondents living in N.E. Corstorphine; secondly, these findings are likely to be attributable to the extensive public transport system operative in Edinburgh and the central location of museums in the city centre; and lastly, these findings reflect the holiday recreational contexts of some museum visits, which do not necessarily rely on private transport, as detailed in Chapter 3.

4.3 The Effect of Museum Attraction Style on Constraints and Control

The majority of constraints and control anticipated by respondents were similar for both the idea and object-based museums, as identified by non-significant chi-square values (Table 4.1). However, *'needing a few spare hours to make it worthwhile'* (p=.002, Cramer's V = .229), *'needing to see it advertised'* (p=.02, Cramer's V = .19), and *needing more interest in social history or archaeology'* (p=.05, Cramer's V = .18) were constraints or control peculiar to each museum style at below the 0.05 significance level. However, although statistically significant these differences between the two museums identified were not very strong.

The majority (70.6%) of those who felt it was extremely unlikely that *would 'need a few spare hours in order to visit the museum'* were from the idea-based museum sub-sample, while the majority (72.2%) who felt that it was quite unlikely that they would *'need a few spare hours'* were from the object-based museum sub-sample. Further, of those respondents who felt neither constrained nor in control of the amount of time required for a visit, 84.2% were from the object-based museum sub-sample. These findings suggest that the museums differ very little in terms of the time needed to visit, with the idea-based museum perhaps seen as marginally more accessible as an entertainment recreational pursuit not associated with serious leisure (Stebbins 1994). This conclusion was partially supported by the finding that the majority of respondents who were extremely likely to *'need more interest'* (70.6%) were from the object-based museum sub-sample, while the majority of respondents who were extremely unlikely to *'need more interest'* (63.7%) were from the idea-based museum sub-sample.

Overall, these findings suggest that although statistically significant differences were observed, the differences were a matter of degree. Further these findings provide initial evidence that differences in museum attraction type are not affected by the resources respondents anticipate they will have to bring or overcome in order to enjoy the museum visit. Hirschman and Holbrook (1986), as noted earlier, have suggested that the *resources* individuals need to bring to experiential consumption has an effect on the consumption experiences realised. In contrast, the present study found that, at the holistic or global level, of anticipated social-history museum (interpretative) style, respondents did not expect to expend different resources, or levels of resources, in different museum environments. Furthermore, assessment of whether there are significant interaction effects between constraint-control beliefs, general attitudes and value-contingent experience beliefs, will provide a more comprehensive assessment as to whether the resources that individuals bring

to the museum setting impact on the experiential outcomes they anticipate.

To summarise, in the present survey, middle-class residents did not think that there were substantial differences between the idea and object-based museum styles in terms of the pre-visit resources required. The next section in this Chapter examines whether distinct sub-groups of constraints and control factors exist, for both the idea and object based museum, which are consistent with typologies of constraint, control and experiential resources outlined earlier.

4.4 Dimensionality of Museum Perceived Constraints and Control

In early leisure studies, constraints on recreation participation included only a narrow range of barriers, which were typically analyzed on an item-by-item basis (Jackson et al 1993). More recently, data analysis has been conducted at an 'aggregate level' where constraints are grouped or classified in someway, rather than analysed as single items. Common grouping procedures have included factor analysis (e.g. Backman and Wright 1993, Raymore et al 1993, Backman and Wright 1990, Wright and Goodale 1991, Jackson and Dunn 1987) and multi-dimensional scaling (Hultsman 1995) and the advantages of these techniques including research reliability have been well documented (Jackson et al 1993, Hultsman 1995).

Interestingly, the six principal dimensions originally identified by Jackson (1993), and which included accessibility, social isolation, personal reasons, costs, time commitments and facilities, have been found in all leisure studies which have employed factor analysis (Hultsman 1995), although this may also be due to the specification of a similar array of variables across the studies. Closer examination of these principal dimensions identified by Jackson (1993), however, shows that they can be summarised by the three types of constraints (interpersonal, intra-personal and structural) developed by Godbey and Crawford (1987), and reviewed in section 4.1.2 , sub-section (b). Only those constraints relating to the quality of the facilities

(e.g. crowding and maintenance) identified by Jackson (1993) could not be subsumed within the Godbey and Crawford (1987) typology of constraints.

As outlined in Chapter 1, little attention has been given to constraints and perceived control in museum studies. Interestingly, however, the pattern of *empirical* development observed in leisure studies is reflected in the studies that have to any extent examined museum visiting constraints. For example, while European work has concentrated on focus group findings and item-by-item analysis of survey questions, Tian et al (1996) recently identified eight constraint domains across a range of North American museums, including an art gallery and formal garden. These constraint domains included cost, time, and difficulty of access, repetition, product failings and lack of interest. Unsurprisingly, due to the leisure science basis of Tian's et al's (1996) study, the domains identified were comparable with those found in leisure studies (Jackson 1993), and, like studies of leisure constraints, included items which may be more appropriately considered negative expectancy-value belief, or the antecedents of negative attitudes, rather than constraints and barriers to participation[1].

This present study sought to assess whether the eighteen constraint and control beliefs derived from qualitative interviews could be grouped empirically. Furthermore, and as mentioned previously, this study sought to compare whether latent constraint constructs derived were similar to those identified in other literatures reviewed in Section 4.1.2, and in the study of Tian (1996).

Exploratory and confirmatory principal components analyses were used to assess whether the eighteen constraint and control factors derived from qualitative interviews could be grouped empirically. Exploratory and confirmatory factor analyses served to identify the implicit

[1] For example, Tian et al (1996) referred to 'repetition' as including *'seeing the same things again at the museum'* and as *'already having seen the museum'*. Together, these refer to novelty attributes associated with the museum setting which, in the present study, were considered a constituent of attitude and will be examined in subsequent chapters. Similarly, the *product failings* dimension identified by Tian et al (1996) seems strongly associated with the museum environment attributes and general museum image, and, it could be argued should not to be considered constraints or control issues as conceptualised in social psychology more generally.

structure of museum constraints and control as latent dimensions. As noted in Chapter 2 (section 2.3.2.1), exploratory principal component analysis served to refine (or reduce) the set of constraints and control measures to include only those variables which were prominent indicators of the latent dimensions identified, and at the same time to reduce multi-collinearity. Confirmatory factor analysis, using structural equation modelling with latent variables, allowed the researcher to test the factor structure derived from exploratory principal components analysis while accounting for measurement error (see Chapter 2, section 2.3.2.2).

4.4.1 Exploratory Principal Component Analyses (EPCA)

i) Appropriateness of the Data for Factor Analysis

The absence of strong and significant differences between the two museum styles on the eighteen constraint and control measures suggested that principal component analysis could appropriately be conducted on the total sample (N=400). The sub-samples from the idea and object based museums were combined for exploratory principal component analysis. The data were assumed to be continuous rather than ordinal (measured on 7 point scales).

The constraint and control data was considered acceptable with the ratio of 22.2 observations to each variable well within the suggested range of three or five respondents to one variable (Hair et al 1995). Further, the Bartlett's sphericity test of variable independence was rejected at $p<.000$. Bartlett's test has been found, however, to reject variable independence for sample sizes of greater than 200, variables equal to 10 and a .05 significance level, even when intercorrelations among the variables are as low as .09. As such, an additional measure, the Kaiser-Meyer-Olkin measure of sampling adequacy, was taken to ensure the appropriateness of the data for factor analysis. A Kaiser-Meyer-Olkin value of .79499 was above the minimum criteria of .50 and according to the criteria offered by Kaiser and Rice (1974) was considered 'meritorious to middling'.

ii) Choosing the Number of Factor Components to Extract

The eighteen constraints and control measures were subject to principal component analyses. From the initial factor matrix solution, two measures were principally used to determine the number of factor components to extract; the scree plot and the latent root or eigenvalue. Principal components with a latent root or eigenvalue > 1 explain more variance than a single observed variable. Table 4.2 shows the criterion of an eigenvalue > 1 suggested five factor components explaining 53.7% of the variance should be extracted.

Table 4.2: Number of Principal Dimension Components Identified with Eigenvalues > 1

Dimension	Eigenvalue	% Variance	Cumulative %
1	4.25538	*23.6*	23.6
2	1.77823	*9.9*	33.5
3	1.33791	*7.4*	41.0
4	1.27242	*7.1*	48.0
5	1.01319	*5.6*	53.7

Figure 4.1 details the scree plot for the eighteen constraints control measures. The scree plot begins to trail at three principal components. This identified the point at which the scree effects associated with a dominance of unique variance in the factors had begun and suggested that three components would be an appropriate number of principal component factors to extract (Hair et al 1995).

As the two methods did not agree on the number of factor to be extracted, both the three and five factor component solutions with Varimax rotation were examined for general interpretability (Hair et al 1995). Hair et al (1995) has suggested that, in addition to the scree plot and eigenvalue of >1, factor component solutions two above and below those suggested by the eigenvalue > 1 criterion should also be examined for interpretability. These additional factor component solutions were also examined for interpretability and provided one means to guard

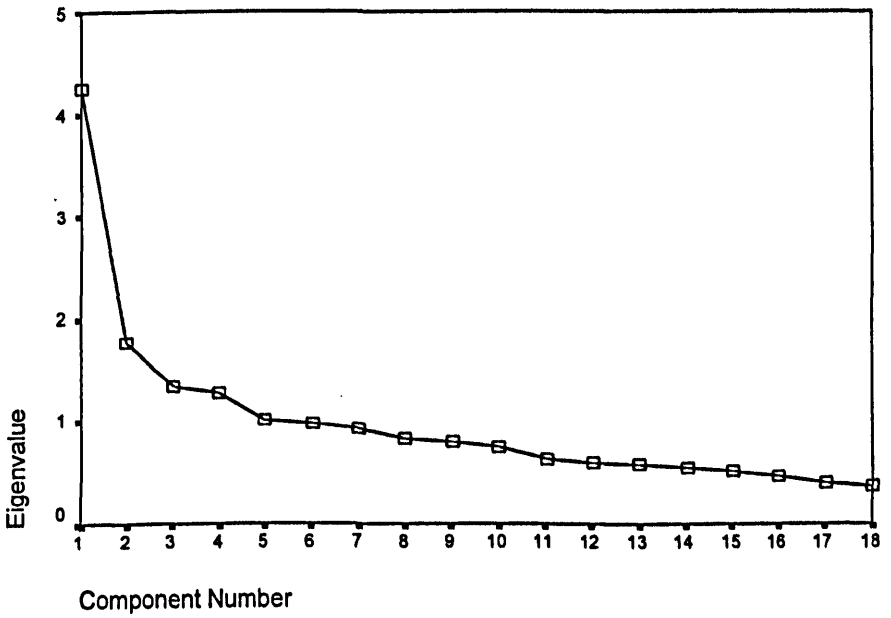


Figure 4.1: **Scree Plot for Museum Visiting Constraints PCA analysis**

against a conservative number of factors being extracted (Mitchell 1993). As such, initial component matrices were examined with 3 to 7 principal dimensions. Variables were assigned to latent dimensions where the latent variable was found to load on the variable significantly (i.e. .5 or above, Hair et al 1995).

The five-factor solution was found to be interpretable, meaningful in terms of reviewed literature and distinct. However, examination of the principal factor components using coefficient alpha showed that the fifth factor extracted was not internally consistent as measured by an alpha coefficient of .3530. For this reason the five principal component solution was not considered an adequate representation of the constraints and control data.

The three principal components solution was interpretable and suggested distinct factors that were consistent with the three types of constraints identified by Crawford and Godbey (1987)

and others (Raymore et al 1993, Crawford et al 1991). Variables on which the latent dimensions failed to load significantly were deleted. Table 4.3 details the principal components that describe the constraints and control anticipated by respondents for museum visits as latent dimensions.

iii) Exploratory Principal Components of Museum Constraints and Control

Table 4.3 identifies those variables on which the three principal components loaded significantly. The three latent dimensions together explained 48.2% of the variance in the data.

Table 4.3: Rotated Component Matrix for Constraints and Control (N=400)

	Component		
	1 *Interpersonal Situational*	2 *Time & Planning Resources*	3 *Intra-personal Awareness*
% Variance explained	*26.8*	*12.1*	*9.3*
Eigenvalue	3.75	1.70	1.30
needs to be a rainy day	.709		
need to be told by a friend	.667		
need to feel it is not a touristy thing to do	.655		
need more interest	.641		
need to find someone to go with	.597		
need to find the time to go		.681	
need the time and energy to plan the visit		.656	
need to change schedule		.639	
need to have a few spare hours to make it worthwhile		.624	
need to be not too tired		.579	
need to know something about the museum			.743
need to have prior knowledge of subjects covered			.702
need to know companions will enjoy			.632
needs to be not too expensive			.525
Alpha	.7148	.6782	.6450

Dimension 1: Situational and Interpersonal Constraints and Control

Table 4.3 shows the primary anticipated constraints or control reported by respondents, and on which the first principal component loaded significantly, were situational in content and subsumed the interpersonal constraints identified by Crawford and Godbey (1987) in their

hierarchical model of leisure constraints. In particular, the first principal component, explaining 26.8% of the variance in the data, included *'needing to be a rainy day' 'needing to be told by a friend', 'needing more interest'* and *'needing to find someone to go with'*. As such, this principal dimension includes stimulus motivation associated with interpersonal activities as well as the situation contexts of bad weather and the subject content of the museum (i.e. social history rather than science etc.).

Interpersonal situational constraints and control were found to be internally consistent and homogeneous with an alpha coefficient of .7148 and a mean inter-item correlation of .3373. The alpha coefficient could not be improved by deleting any of the variables on which the principal component was found to load at .5 or above. However, corrected item-to-total correlations were found to be below the .5 criteria preferred for non-exploratory studies (Briggs and Cheek 1983, see Chapter 2). All items on this dimension were found to have corrected item to total correlations of above the lower threshold level of .4 suggested by Manfredo et al (1996) and as such the interpersonal situational construct was deemed to have acceptable reliability using this lower criterion level.

Dimension 2: <u>Time and Planning Resource Constraints and Control</u>

Table 4.3 shows that the second dimension identified, and explaining 12.1% of the variance in the constraints and control data, captures time commitment and planning considerations. As such, this study confirms that time considerations form a separate sub-set of constraints, consistent with outdoor recreation studies in North American museum environments (e.g. Jackson 1993, Hultsman 1995) and corresponding to intervening or structural constraints identified in this literature. Further, these findings highlight the importance of time as one of the key resources required in experiential consumption activities (Lacher 1989, Cooper-Martin 1991, Hirschman and Holbrook 1982, Holbrook and Hirschman 1982) and as a marketing

variable, being central to current notions of 'value for time' and 'occasion-based segmentation' (Henley Centre 1997 report Sian Davies Media Futures).

However, in addition to time considerations, this second extracted component, was found to also include those planning issues identified as a particular type of perceived control by White et al (1994). Variables on which the second time and planning dimension loaded significantly included *'needing the time to go', 'needing the time and energy to plan for the visit', 'needing to change your schedule', 'needing a few spare hours to make the visit worthwhile'* and *'needing not to be too tired'.*

The time and planning resource constraints and control latent dimension was found to have an acceptable internal reliability and homogeneity for exploratory studies with an alpha coefficient of .6782 (Nunnally 1978) and a mean inter-item correlation within the optimal band of .2 to .4 at. 3738 (Briggs and Cheek 1983). Further, analysis showed that the alpha coefficient could not be improved by deleting any of the variables. However, corrected item to total correlations were below the preferred level of .5, and in particular, *'needing to not feel tired'* had an unacceptably low corrected item to total correlation of .3673, indicating that the internal consistency of the time and planning resource dimension could be improved by deleting this variable. This variable was deleted.

Dimension 3: Intrapersonal Awareness Constraints and Control

Table 4.3 shows that respondents' awareness of the museum environment is the third and final dimension identified in the present analysis. Variables that loaded significantly on this component included *'needing to know something about the museum', 'needing prior knowledge of the subjects covered', 'needing to know your companions will enjoy it'* and *'needing to know the museum is not expensive'.* This dimension seemingly measures the respondent's confidence with the museum environment and can be seen as similar to notions of self-efficacy.

Intrapersonal constraints and control explained 9.3% of the variance and were found to have an acceptable coefficient alpha for exploratory studies of .6450 . The alpha coefficient could not be improved by deleting any of the variables and the mean inter-item correlation of .3999 was within the optimal range suggested by Briggs and Cheek (1983). However, corrected item to total correlations were lower than the preferred .5 level and *'needing to know it is not expensive'* had a corrected item to total correlation below .4 at .2937, suggesting that the deletion of this item would improve the construct validity of the intrapersonal awareness constraints and control latent construct. *'Needing to know it is not expensive'* was not retained for subsequent analysis.

In the preceding sections, two variables deleted as scale purification measures determined by corrected item-to-total correlations. A further principal component analysis was conducted in order to account of the two variables that had been deleted[2] (e.g. Tian et al 1996). Table 4.4 details those variables on which the three latent dimension loaded significantly and shows that the deletion of these items, although not altering the three principal components identified, does change the order of variables on the construct in terms of their factor loading.

4.4.2 Confirmatory Factor Analysis (CFA)

Confirmatory factor analysis (CFA) was used to test the three dimensional latent variable model[3] from the previous exploratory principal component analysis (EPCA).

[2] This is necessary because principal component analysis is a dependence technique and will be affected by changes in the pool of items included in the analysis. Examples of other studies that re-run the principal components analysis to account for 'noise' variables include Crompton and McKay (1997), Tian et al (1996) and Babin et al (1994). 'Noise' variables are those variables which fail to load significantly on latent dimensions as well as those variables which are found to be problematic because they load significantly on two or more of the latent dimensions extracted or significantly impact on the reliability of the construct, as measured by Cronbach's Alpha.

[3] Here the aim is to test the structural relationship between observed variables and between observed variables and latent constructs.

Table 4.4: Final Rotated Component Matrix for Museum Constraint-Control Domains

	Component		
	1 *Interpersonal Situational*	2 *Time & Planning Resources*	3 *Intra-personal Awareness*
% Variance Explained (52.2%)	***28.5***	***13.2***	***10.5***
needs to be a rainy day	.757		
need to find someone to go with	.689		
need to be told by a friend	.682		
need to feel it is not a touristy thing to do	.602		
need more interest	.527		
need to change your schedule		.729	
need to find the time to go		.695	
need to have a few spare hours to make it worthwhile		.674	
need the time and energy to plan the visit		.654	
need to have prior knowledge of subjects covered			.817
need to know something about the museum			.765
need to know companions will enjoy			.624

i) Variables Used In Confirmatory Factor Analysis

As noted in Chapter 2, Steenkamp and van Trijp (1991) have advised a further stage in scale purification beyond corrected item to total correlations and exploratory factor analysis should be undertaken prior to CFA to make CFA using structural equation modelling 'more manageable' (Steenkamp and van Trijp 1991, Gerbing and Anderson 1988). As such, only those variables with a factor loading of over .65 in Table 4.4 were included.

The alpha reliabilities for the reduced set of variables were assessed as recommended by (Steenkamp and van Trijp 1991) and as shown in Table 4.5 were acceptable.

Table 4.5 Internal Reliability of Final Dimensions to be used in CFA as measured by Cronbach's Alpha.

1 *Interpersonal Situational*	2 *Time & Planning Resources*	3 *Intra-personal Awareness*
.6310	.6568	.6962

Figure 4.2 details the hypothesised factor model. The three dimensional model comprised of three items measuring interpersonal situational constraints; four items measuring time and planning resource constraints and two items measuring intrapersonal awareness constraints. The model specified was a first-order model where the latent dimensions were allowed to correlate. Instead of testing the three dimensional CFA model on the total sample (N=400), a two-group analysis was specified in order to assess whether the three dimensional constraints-control model described the constraints and control beliefs data in both the idea and object-based museums.

Initial examination of the distribution of the constraint-control data showed that the idea-based museum sub-sample achieved multivariate normality, as measured by the inability to reject Mardia's coefficient of multivariate kurtosis (Mardia coefficient = 3.193, CR = 1.60, $p>.05$), while the object-museum sub-sample did not have a multivariate normal distribution (Mardia's coefficient = 6.196, CR = 3.11, $p<.01$). As such, asymptotic distribution free estimation (ADF, as detailed in Chapter 2, section 2.3.2.2, sub-section (iii)) was employed.

ii) Evaluation of overall model fit (convergent validity)

The resulting global fit statistics for the three dimensional CFA constraint-control model were acceptable (see Fig 4.2). The Chi-square statistic was not significant (Chi-square 63.94, df=48, p=.06); global goodness of fit measures were excellent (GFI = .98, AGFI=.96, Chi-square/df ratio = 1.33, RMSEA=.03); and incremental fit measures were generally above the required .9 level (TLI = .94, CFI=96, NFI=.87). Overall, the fit statistics suggested that the model could not be substantially improved. Further, in both museum sub-samples, there were no 'offending estimates' in terms of negative variance, standardised coefficients that exceeded or approached 1.0 or large standard errors. In addition, all error variables for both independent exogenous variables and dependent endogenous variables were statistically significant. On the basis of these results, the three dimensional CFA model for the

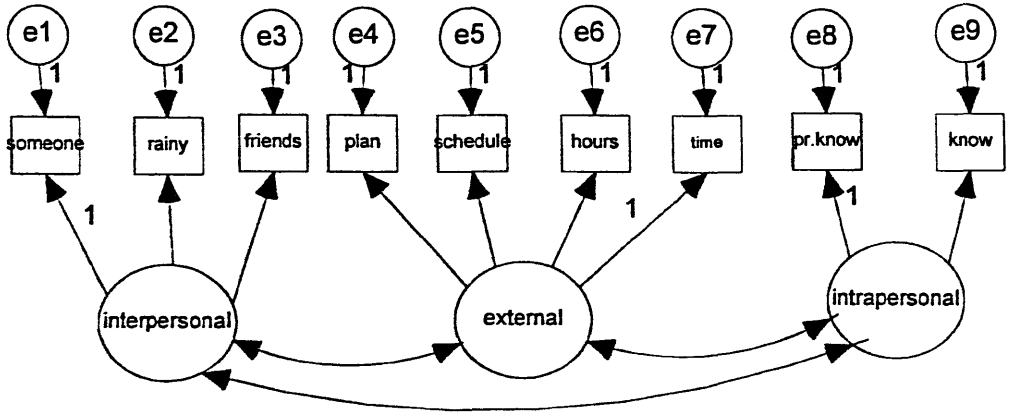


Figure 4.2: **Three Dimensional Model of Museum Control Beliefs**

constraints-control data was accepted as appropriate for both the idea and object based museum sub-samples.

iii) Latent Variable (Measurement) Model Fit

In contrast to the strong support for overall model fit, evidence to support the latent variable measurement model acceptability was mixed (see Table 4.6). All factor weightings were significant and generally above the required .5 level for non-exploratory studies (Bagozzi and Yi 1988). There were a few exceptions in the object-based museum where for *'needing to find the time to go'* and *'needing a few spare hours'* the factor loadings were .43 and .47 respectively (see Table 4.6). Overall, however, the factor loadings suggested an adequate measurement model.

Table 4.6: Factor Weightings, Individual & Construct Reliability and Variance Extracted Measures for Confirmatory Factor Model

	Factor Weighting	Individual Item Reliabilities	Composite Construct Reliability	Average Variance Extracted
Idea-Based Museum				
Intrapersonal awareness				
Need to know something about the museum	.61	.37	.68	.52
Need prior knowledge of the subjects covered	.82	.67		
Interpersonal situational				
Needs to be a rainy day	.61	.38	.66	.39
Need to find someone to go with	.55	.30		
Need to be told by a friend	.64	.41		
Time and Planning Resources				
Need time & energy to plan	.58	.33	.68	.52
Need to change schedule	.61	.37		
Need to find the time to go	.54	.29		
Need a few spare hours	.70	.49		
Object-Based Museum				
Intrapersonal awareness				
Need to know something about the museum	.80	.64	.69	.53
Need prior knowledge of the subjects covered	.69	.47		
Interpersonal situational				
Needs to be a rainy day	.64	.41	.71	.46
Need to find someone to go with	.69	.48		
Need to be told by a friend	.69	.47		
Time and Planning Resources				
Need time & energy to plan	.82	.68	.73	.42
Need to change schedule	.76	.58		
Need to find the time to go	.47	.22		
Need a few spare hours	.43	.19		

In terms of individual measurement reliability the picture was less straightforward. Table 4.6 shows that several of the observed variables had individual reliabilities below the recommended .5 level, demonstrating that for these variables less than 50% of their variance was explained by the latent or unobserved dimension. In particular, in the object-based museum sub-sample the individual reliabilities for *'finding the time to go'* (.19) and *'needing to find a few spare hours'* (.22) were extremely poor. Similarly in the idea-based museum, *'needing to find a few spare hours'* and *'needing to find someone to go with'* both had only a small percentage of their variances explained by their respective latent constructs (29% and 30%, respectively). These disappointingly low individual reliabilities are however considered to be the lower bound estimate of measurement reliability (Arbuckle 1997). This is because the individual reliabilities in CFA models not only include random measurement error, but also take account for any systematic unique variances in the observed variables which are not accounted for in the CFA model. As such, although some of the individual reliabilities in the constraint-control CFA were low (see Table 4.6), it was decided to place more emphasis on the composite reliabilities which assesses reliability in the latent construct as a whole (Bagozzi 1982).

Table 4.6 details the reliability for the latent constraint-control constructs as assessed by composite and variance extracted measures. For both the idea and object-based museum sub-samples, Table 4.6 shows that the latent constructs of interpersonal, intra-personal and external constraints and control were generally measured to a satisfactory level for an exploratory study. All latent constructs had composite reliabilities approaching or above the .7 level recommended by Hair et al (1995), and exceeded the .6 level suggested by Bagozzi and Yi (1988). These findings confirm that the observed variables associated with the three latent constructs are consistent in their measurement of the latent variables.

Average variance extracted, or the overall variance in the observed indicators accounted for in the latent construct has been described as a more conservative measure of construct

reliability (Fornell and Larcker 1981). This is because average variance extracted indicates the amount of variance captured by a construct in relation to the amount due to the error present in the model. In the present analysis, average variance extracted in each of the latent constructs was generally found to be approaching the .5 level recommended for non-exploratory studies (Hair et al 1995, Bagozzi and Yi 1988). Exceptions included the *interpersonal situational constraint* domain in the idea-based museum sample, and *external time and resource constraints* domain in the object museum sample. Taken together however, the results from composite reliability and average variance extracted measures suggest that within the exploratory context of the present study, the three dimensional CFA constraints and control measurement model could accepted. Future research needs to focus on improving the reliability of the measurement model.

iv) Discriminant Validity

In both museum sub-samples, the CFA models for constraints and control were examined for latent constructs that were correlated highly at above .90. Table 4.7 demonstrates that none of the latent constructs were correlated at above .90, suggesting initial support for the discriminant validity of these dimensions (Bagozzi and Yi 1988, Hair et al 1995).

Table 4.7: Correlations Between Pairs of Latent Constraint and Control Constructs (standard error)

	Interpersonal	External	Intrapersonal
Idea-Based Museum			
Interpersonal	1.00		
External	.34 (.18)	1.00	
Intrapersonal	.40 (.21)	.25 (.24)	1.00
Object-Based Museum			
Interpersonal	1.00		
External	.31(.13)	1.00	
Intrapersonal	.50 (.20)	.21 (.12)	1.00

A more formal test of discriminant validity consisted of assessing the pairwise correlations between latent constructs to determine if nested models[4] were significantly different (see Table 4.8, e.g. Selnes 1996, Bagozzi and Kimmel 1995). Discriminant validity could be accepted if there was a significant drop in the Chi-square from the constrained to the unconstrained model.

Table 4.8 shows that for the idea-based museum sub-sample, there was little support for discriminant validity among the latent constructs using pairwise Chi-square test. For all of the pairwise tests there were not a significant drop in Chi-square value when the constrained and unconstrained models were compared (see Table 4.8). In the object-based museum discriminant validity was established between the interpersonal and intrapersonal constraints and control dimensions, but discriminant validity could not be established for external constraints and either interpersonal or intrapersonal constraints (see Table 4.8).

Table 4.8: Assessment of Discriminant Validity: Chi-square difference tests between each pair of latent constructs (measurement scales) for the Idea and Object-Based Museums

	Constrained Model		Unconstrained Models			Difference Between Models	
Latent Constructs	***df***	***x²***	***x²***	***P***	***GFI CFI***	***x²***	***p***
Idea-Based Museum							
Interpersonal and External	14	22.78	19.35	.113	.984 .948	3.43	p>.05 * <.01
Interpersonal and Intrapersonal	5	15.70	13.86	.127	.952 .988	1.84	p>.10 *
External and Intrapersonal	9	14.68	13.50	.10	.985 .960	1.18	p>.10 *
Object-Based Museum							
Interpersonal and External	14	26.01	17.19	.191	.983 .979	8.82	p<.01
Interpersonal and Intrapersonal	5	11.23	8.88	.06	.990 .949	2.35	p>.10*
External and Intrapersonal	9	23.49	9.10	.334	.986 .991	14.39	p<.01

* lack of significance difference between nested models is associated with lack of discriminant validity

[4] For one model the correlation between the two latent constructs was restricted to 1.0, while in the second model the correlation was free or unconstrained.

Where discriminant validity could not be found through pairwise comparison tests, two additional tests of discriminant validity was employed; firstly, the confidence intervals (+/- 2 standard errors) around the estimated correlations between the pairs of scales were examined to see if they included 1.0 (e.g. Bagozzi and Kimmel 1995). Table 4.7 confirms that for both museums, all latent construct were found to be distinct and as such hold discriminant validity using this criteria; that is, there was less than a 5% chance that the correlation observed between the constructs could include 1.0. Secondly, the measures of average variance extracted for each latent construct were examined to ensure that they exceeded the estimated interfactor correlation between the two latent constructs (Babin and Boles 1998). In both museum sub-samples, and for all interfactor correlations, the variances extracted in the latent constructs were found to be greater than the correlation between the constructs (comparison of Table 4.6 and 4.7), except for the correlation between interpersonal and intrapersonal constructs in the object-based museum, where the correlation between these constructs (.50) slightly exceeded the average variance extracted observed for interpersonal situational constraints (.46). As such, the three dimensional model measurement model of museum constraint-control was found to have acceptable discriminant validity, demonstrating the utility of grouping constraint and control pre-visit experiences into distinct and meaningful sub-groups.

To summarise, the present analysis has found museum constraint and control beliefs to be multi-dimensional, and, in particular, to be represented by three latent constructs which correspond to the leisure science constraints typology offered by Crawford and Godbey (1987); to contain White et al's (1994) 'planning' variable; and to reflect Bandura's (1982) notion of 'self-efficacy'. Interestingly, both 'planning' and 'self-efficacy' have been found to be mediated by intention in the Theory of Planned Behaviour, rather than affect behaviour directly.

4.4.3 Assessing Differences in CFA Constraint-Control Model for the Idea and Object-Based Museum Sub-Samples

The two group measurement model tested in Figure 4.2 has shown that the three dimensional model CFA factor structure is appropriate for both the idea and object based museums. This is perhaps not surprising when the museum sub-samples were not found to differ significantly in terms of the evaluations of each individual constraint or control earlier in this Chapter (see Table 4.1). A more rigorous test of the equality (or difference between) the two museums, in terms of the pre-visit constraints and control dimensions anticipated by respondents, can be achieved by testing whether the two museum sub-samples vary in any way with regards the three dimensional CFA model. This is similar to the set of hypotheses recommended by Bagozzi (1983) as a method for validating market segmentation analysis:

a) hypothesis of invariant measurement patterns = factor pattern equality
b) hypothesis of equal structural relations = factor intercorrelation invariance
c) hypothesis of equal variance in latent factor constructs = latent variable invariance
d) hypothesis of equal measurement models = residual variable invariance

If hypotheses a) to d) can be accepted, then the two museum sub-samples are shown not to differ significantly on any element of the three dimensional CFA constraint-control model, and it would be reasonable to expect the input variance-covariance matrix to be equivalent in the sub-samples. If each of the hypotheses cannot be accepted, then this approach demonstrates where the two museum sub-samples differ in terms of anticipated constraints and control.

In Figure 4.2, the structural CFA model was assessed for its appropriateness across the two museum styles. Here the CFA model allowed the factor loadings, variances in latent and observed variables and interfactor correlations to vary in each museum sub-samples. In order to assess if museum attraction type affects perceived constraints or control, the three dimensional CFA model from Figure 4.2 was tested for invariance across the two museum

sub-samples in terms of factor weightings (structure) invariance, inter-factor correlation , residual and latent variable variance.

Factor Structure Pattern is Independent of Museum Attraction Type

In order to examine whether the factor loading patterns for each latent constraint-control construct were equivalent for both the idea and object-based museum the Chi-square statistic and corresponding degrees of freedom for the two nested models were compared. The two group CFA model where the matrix of factor loadings was hypothesised *not to be significantly different*[5] (Chi-square = 73.46, df = 54), was tested against a CFA model in which the matrix of factor loadings in each museum sub-sample *are allowed to be significantly different* [6]. For the hypothesis of factor pattern invariance across the two museum sub-samples to be accepted, the difference in Chi-square value (x^2) between the two models, at degrees of freedom equal to difference in degrees of freedom observed in the two models (df/2), should not be significant at the p=.05 level. The x^2 difference statistic ($x^2/2$) between the two CFA constraint-control models was 9.55 with 6 degrees of freedom (p>.10). This confirms that the factor pattern matrix is not significantly different in the idea and object museum sub-samples, and demonstrates that that a fixed unit change in the latent construct (e.g. external constraints) will correspond to the same amount of unit change in an observed variable (e.g. needing to find the time to go), independent of museum attraction style (idea or object-based museum). This model, does not however, assume that the variances in the observed or latent variables, or the inter-factor correlations are equal in the two museums. Rather, it shows that the constraint-control factor structure is the same in both museums. As such, external, interpersonal and intrapersonal constraint and control domains could have different variances and co-variances, resulting from differences in pre-visit experiences associated with the idea and object-based museum attractions.

[5] That is, where the factor weightings are constrained to be equal across the idea and object-based museum sub-samples.

[6] Figure 4.2, where the factor loading were not constrained to be equal, Chi-square = 63.94, df = 48.

Constraint-Control Interfactor Correlation Invariance

The constraint-control measurement model was examined with the additional constraint that the matrix of interfactor correlations remained invariant across the two museum sub-samples. The x^2 difference ($x^2/2$), resulting from a comparison of this model ($x^2 = 76.73$, df = 57), with the one constraining only factor loadings matrix ($x^2 = 73.46$, df = 54), was 3.27 with 3 degrees of freedom ($p>.10$) and demonstrated that the relationships between the interpersonal, intrapersonal and external latent constructs were the same in each museum sub-sample. This provides further evidence that the structure and dynamics among constraints-control perceptions do not vary by museum attraction type.

Independence of Latent Variable Variance of Museum Attraction Type

Constraining the latent variable variances to be equal in the two museum sub-samples seeks to determine whether there were any differences between the idea and object-based two museum styles in terms of the range (i.e. between the highest level of constraint and highest level of control) of interpersonal, intrapersonal and external constraints, respondents anticipate in visiting each museum type. The three-dimensional constraint-control CFA measurement model was examined with the additional constraint that the variance in external, interpersonal and intra-personal latent variables (interpersonal, intrapersonal and external) were not dependent on the museum attraction type. The x^2 difference ($x^2/2$), resulting from a comparison of this model ($x^2 = 80.36$, df = 60), with the previous model where the factor loadings matrix and interfactor correlations were constrained ($x^2 = 76.73$, df = 57), was 3.63 with 3 degrees of freedom ($p>.10$). As such, it can be concluded that idea and object-based museums do not vary in the range of interpersonal, intrapersonal and external constraint types perceived by middle-class Edinburgh residents.

A final test of the equality of the idea and object-based museum sub-samples in terms of anticipated museum constraint and control was to test whether the measurement variables were equivalent in each sub-sample. It was presumed that this was likely to be the case due to the inability of Chi-square contingency tests to identify differences between perceived museum constraints and control earlier in this Chapter (see Table 4.1). Testing whether the two museum-styles differed in their measurement was achieved by constraining the variance in the residual latent variables to be equal in the two museum sub-samples. The x^2 difference ($x^2/2$), resulting from a comparison of this model ($x^2 = 108.37$, df = 69) with the previous model[7] ($x^2 = 80.36$, df = 60), was statistically significant at a value of 28.0 and 9 degrees of freedom ($p<.005$). This shows that although the structural and latent variables are equivalent in the two museums there is some statistical difference in the manifest variables measured, when measurement error is taken into account, and this suggests that some caution should be exercised in concluding that the two museum sub-samples are equivalent in terms of pre-visit constraint or control experiences, and that it may not be appropriate to pool the two museum sub-samples in subsequent analysis. However, against these arguments it must be remembered that the significance level used to assess competing nested models, should be moderated when multiple testing takes place (Bagozzi 1983). As such, it could be considered inappropriate to be testing for model significance at the 95% level and a higher level of confidence should be adopted. To the author's knowledge there are presently no methods available to re-calculate the appropriate level at which to examine significance in multiple testing of CFA models.

An inspection of Table 4.5 and Figure 4.2 shows that the individual reliabilities of *'needing to find the time to plan ahead'* varied considerably in the idea (.33) and object-based museum sub-sample (.68). Clearly the external constraint-control dimension explains more of the

[7] In the previous model factor loadings, latent factor variables and interfactor correlations were constrained.

variance in *'needing to find the time to plan ahead'* in the object-based museum than in the idea-based museum. This suggests that there is more unique variance or measurement error associated with *'needing to find the time to plan ahead'* in the idea-based museum. The latter of which could be due to both the holiday context of museum visits and/or measurement error associated with less experience of visiting these sites and less availability of these types of museums locally. The equality constraint on variance of 'e11', the residual variable for *'plan'*, was relaxed and allowed the museum sub-samples to differ in this respect. With the residual variance in planning relaxed the model was found to be acceptable ($x^2/2=15.25$, $df/2=8$, $p>.05$). As such the two museums can be considered to vary only in terms of *'needing to plan ahead'*, when testing at the 95% level.

By testing for the equality of each part of the three dimensional constraints-control models across the two museum samples, the above analysis has concluded that the variance-covariance matrix for the constraint-control data should be the same in both museums. Testing for equality in the variance-covariance matrix across the two museum sub-samples confirmed this to be the case; the model was found to fit the data well ($x^2= 28.75$, $df=38$, $p =.83$, $x^2/df=.78$, RMSEA = .00, GFI = .99, AGFI =.97, TLI = 1.04, CFI = 1.00, NFI = .94). Bagozzi (1983) has suggested that sub-samples can be validly pooled if the variance-covariance matrices are equivalent across sub-groups. As such, subsequent analysis of the constraint-control domains was conducted on the total samples of four hundred respondents.

Overall, findings from the bi-variate contingency analyses (section 4.3) and confirmatory factor analyses presented above demonstrate that respondents from the idea and object-based museum sub-samples did not differ in terms of either the level of perceived constraint or control they experienced, or in terms of the 'grouping' of constraint or control beliefs in an individual's mind. Furthermore, the findings from nested modelling have shown that respondents in the two museum sub-samples see the 'structural dynamics', or the relationship

between constraint domains and relationship among variables within a constraints domains to be the same, regardless of museum attraction type.

The following section will explore the 'determinants' of these constraint or control dimensions in terms of socio-demographic, museum socialisation and other individual characteristics that differentiate sample respondents.

4.5 Socio-Structural Factor Influencing Anticipated Constraints and Control in Museum Visiting

The *'sufficiency principal'* associated with attitude-based intention models, such as The Theory of Planned Behaviour, holds that the effects of variables external to these model (e.g. socio-demographic characteristics, personality and past experience) on intention, should be mediated, or 'captured' through their relationship with behavioural, normative or control beliefs. If the 'sufficiency principal' holds for museum visiting behaviour, museum constraint-control beliefs should be capable of identifying and explaining sub-groups differences in the present sample that have commonly been associated with different levels of museum visiting behaviour and/or intention in past studies. The following section seeks to determine whether constraint-control beliefs vary by socio-demographic, museum use-occasion, museum-related past-times, and museum socialisation in the middleclass respondents surveyed. Evidence demonstrating significant effects for these variables on museum constraint-control domains would provide initial support to suggest control-beliefs might be sufficient determinants of museum visiting intentions.

To summarise, the following section has two aims; firstly to determine the extent to which control beliefs vary by socio-demographic, socialisation and other differences in the present sample. Such differences would provide initial support to suggest that control beliefs, as conceptualised in TOPB, are sufficient in the prediction of behavioural intention in TOPB. Furthermore, these findings would demonstrate how the effects of variables 'external to TOPB' are mediated in the Theory of Planned Behaviour as applied to museum visiting

intentions (and tested Chapter 8, section 8.2). Secondly, the following section will assess whether social-structural constraints[10] (Shaw et al 1991) are associated with museum visiting.

In order to assess whether the three constraint/control domains identified in CFA analysis were experienced differently by socio-demographic and other sub-groups in the present sample, summated variables were calculated to represent the three constraint/control domains (see Figure 4.2). Table 4.9 details the 'relationships' between the three composite variables calculated to represent interpersonal, intrapersonal and external constraints/control domains, and respondents' socio-demographic characteristics, museum socialisation, museum past behaviour, and museum related life-style pastime activities. Analysis of variance was used to test for group differences. Analysis of variance (ANOVA) is appropriate for identifying if groups, measured at a nominal or ordinal level (e.g. socio-demographics groups), differ in terms of their means on a variable measured at interval or ratio level (e.g. summated score on constraint-control domains) (Diamantopolous and Schlegelmilch 1997).

Overall Table 4.9 shows that of all the constraint-control domains, interpersonal situational constraints, and to some extent external time and planning constraints, are the most affected

[10] Social structural constraints are those constraints that affect an individual's perceived ability to visit a museum. These have often been found to be unconscious and have not been reported in past studies. For example, few respondents are likely to cite gender or their occupational social class as a constraint on museum visiting behaviour.

Table 4.9: The Effect of Socio-Demographics on Perceived Constraint and Control Latent Dimensions

	Intrapersonal-Awareness	Interpersonal-Situational	Time and Planning Resources
Respondent's Socio-demographics			
Gender	-	-	-
Age	-	16.236 (2) .0000	15.363 (2) .000
Education	-	3.008 (2) .05	3.007 (2) .05
Income	-	2.577 (3) .05	-
Social Class	-	2.420 (4) .05	-
Partner's Occupational Grade	-	-	-
Household	-	7.462 (4) .000	9.139 (4) .000
Car Ownership	-	-	-
Residential Location	-	-	3.956 (1) .05
Respondent's Socialisation			
Parent's Education	-	-	3.007 (2) .05
Father's Occupation at 10yrs old	-	-	-
Visits with family as a child	-	3.962 (2) .02	-
Visits with School as a child	-	5.624 (2) .004	-
Interest as a child	-	6.108 (1) .002	-
Interest of Parents as a child	-	-	-
Museum Past Behaviour			
Recency of last visit	-	7.363 (2) .001	-
Frequency of visits	4.585 (2) .01	18.971 (2) .000	-
Thought about visiting	-	-	-
Situational Behaviour			
Day trip	-	-	-
VFR	-	-	-
Holidays	-	7.670 (1) .006	-
New Exhibition	-	15.675 (1) .000	-
Re-visit	-	17.195 (1) .000	-
Rainy Day	-	-	-
Occupy Children	-	-	-
Lifestyle Museum Related Behaviour			
Genealogy	-	-	-
Historical Re-enactments	-	-	-
Read historical books	-	7.189 (1) .008	-
Member of historical Organisation	-	9.023 (1) .003	-
Kept a Collection	-	-	-
Watch historical documentaries	-	-	-
Watch historical fiction	-	-	-
Studied history	-	3.911 (2) .02	-

Information given in each cell: F value (df)
Significance level

by socio-demographic, socialisation and museum past behaviour differences in the present sample. In particular, respondents from different age or life-cycle categories were found to differ in terms *interpersonal* and *external planning and time* constraints/control, suggesting age and life-cycle are social structural constraints associated with time, planning and interpersonal situational resource allocation. Further, Table 4.6, provides some evidence to suggest that museum socialisation as a child may impact on the *resourcefulness* or ability of individuals to *negotiate* museum constraints in terms of overcoming external time and planning difficulties. Interestingly, intrapersonal self-efficacy constraints or facilitators were found to be largely independent of sub-group differences in the present sample, suggesting that these constraints are experienced in the same way by all middle-class respondents or that these constraints do not capture socio-demographic and other differences in the population.

a) The effects of socio-demographics on the museum constraint-control domains experienced by respondents

a. (I) Age and household type as a social structural constraint: the effect of age and household type on time and planning resource control

Age differences in the population have been found to affect individuals' propensity to visit museums (Merriman 1991, Rapoport and Rapoport 1975), and their perceptions of time constraints on visiting and levels of interest (Prentice et al 1997). In particular, older individuals of retirement age have been found to be much *less* likely to visit museums because of their gradual disengagement from public activity (Merrimen 1991, Rapoport and Rapoport 1975); individuals under the age of 35 years old have been found to be more likely to cite lack of interest as a reason for not visiting (Prentice et al 1997); and individuals aged between 35-54 years old have suggested that museums should have longer opening times in order to help scheduling problems (Prince 1985). The present study similarly provides evidence to suggest that age and family responsibilities may affect the respondents perceived

control over museum visits in terms of both planning and time resource allocation and inter-personal facilitators or constraints (Table 4.9).

In the present study, significant positive relationships were found between age and both time and planning resource constraints and inter-personal situational constraints ($p<.000$ and $p<.000$, respectively). Table 4.10 shows that older respondents aged over 55 years on average reported higher levels of time or planning resources control in museum visiting. The post-hoc Bonferroni test[11] was used to confirm which age groups were significantly different. Bonferroni tests confirmed that those aged over 55 years were significantly different from respondents aged 35-54 years old and those aged 18-34 years olds ($p<.000$ and $p<.000$ respectively). As such, older respondents did not perceive there to be any time or planning constraints likely to affect their museum visiting behaviour, while those respondents aged between 18-34 and 35-54 years old did experience time and planning as constraints. This finding appears at first to contradict the reported disengagement of retired individuals from leisure activities noted above (Merriman 1991, Rapoport and Rapoport 1975). On the contrary, the findings of the present study show that although older individuals may have adequate control over time and planning resources because they have more disposable leisure time, there are other factors that account for the disengagement noted by Merriman (1991) and Rapoport and Rapoport (1975).

Interestingly, Table 4.10 identifies respondents aged 18-34 years as those individuals who on average are the most constrained in terms of time and planning resources. This finding is

[11] A significant F ratio in analysis of variance identifies that group means are not equal. If there are more than two groups, analysis of variance will identify a significant f ratio even when only one pair of groups are significantly different.
The Bonferroni test can be used to pinpoint which groups are significantly different. However, the Bonferroni test does more than test for differences between pair of groups as would be undertaken with a t-test. The Bonferroni test is a multiple comparison test and as such adjusts the observed significance level to account for the number of group comparisons made. This is important because as the numbers of group comparisons increase the likelihood of identifying significant differences also increase.
In the present analysis, the Bonferroni test was used to confirm which age groups were significantly different. There were three age groups and if all their means are compared, six comparisons will be made. The Bonferroni test adjusts the observed significance level to account for these six comparisons. This is done by dividing the observed significance level by the number of comparisons. This identifies the significance level required for the difference to be significant at .05. SPSS provides the significance level after the Bonferroni adjustment has been made.

likely to be compounded by family life-cycle differences noted elsewhere (Witt and Goodale 1981, McCarville and Smale 1993), with respondents of this age group more likely to have a dependent family. Indeed Table 4.10 confirms that on average couples with children over seven years old perceived relatively high levels of time and planning constraints, while respondents whose children have left home reported no time and planning resource problems. The present study could not confirm, however, that perceived time and planning constraints were peculiar to respondents with children. Table 4.10 shows that single people and couples with no families are similarly constrained to some degree in terms of time and planning resources. Bonferroni tests confirmed that those respondents whose children had left home were significantly different from

Table 4.10: Effect of age and household type on time and planning control (N=400)

		Mean	F value (df) significance
Time and Planning Control			
Effect of Age			
	18-34 years (n=117)	-2.3162	15.363 (2)
	35-54 years (n=178)	-2.2584	.000
	55 plus year (n=105)	1.0952	
Effect of Household Type			
	single (n=97)	-2.8866	9.139 (4)
	couple with no children (n=51)	-1.6078	.000
	have children under 7 yrs (n=61)	-1.5246	
	have children 7 yrs and over (n=92)	-2.5000	
	have children who have left home (n=99)	1.2828	
Interpersonal Situational Control			
Effect of Age			
	18-34 years (n=117)	1.0855	16.262 (2)
	35-54 years (n=178)	2.4607	.000
	55 plus year (n=105)	4.2381	
Effect of Household Type			
	single (n=97)	.9691	7.462 (4)
	couple with no children (n=51)	2.0588	.000
	have children under 7 yrs (n=61)	2.0984	
	have children 7 yrs and over (n=92)	3.0761	
	have children who have left home (n=99)	4.0404	

single respondents ($p<.000$), couples with no children ($p<.02$), respondents with children under 7 years old ($p<.01$), and respondents with children over 7 years old ($p<.000$). As such, it appears that external time constraints are not affected by the presence of children, but may more likely result from the competing leisure and work commitments characteristic of younger peoples' distribution of time.

Perceptions of interpersonal-situational resource constraint or control were also found to be dependent on age and household type (Table 4.9). Table 4.9 shows that those respondents over 55 years old, and those respondents who have children who have left home, reported a greater degree of perceived control over the interpersonal situational resource requirements necessary for museum visiting, compared to those respondents aged 18-24 years, and those who are single. Bonferroni tests confirmed that respondents aged over 55 years old differed significantly from those aged 18-34 years old ($p<.000$), and those aged 35-54 years old ($p<.002$), in their perceptions of inter-personal situational control. Similarly, in terms of life-cycle, those respondents who were single were found to be significantly different from respondents who have children over 7 years old ($p<.005$), and those respondents whose children have left home ($p<.000$). These findings suggest that younger single respondents find it difficult to locate companions to visit museums and

require situational stimulus to prompt their visits, findings that have been noted elsewhere in leisure studies (e.g. McCarville and Smale 1993). This may be due to both competing leisure activities and perceptions that museum visits are not appropriate or 'the in thing' for younger respondents in terms of symbolic cultural capital.

Other limited socio-demographic effects on perceptions of inter-personal situational control were found for education ($p=.05$), income ($p=.05$) and social class ($p=.05$). Of particular interest was the finding that respondents' with higher education to degree level or above were on average likely to perceive much greater amounts of interpersonal control, compared to those respondents who were educated below degree level (Table 4.11)[12]. Not surprisingly, this pattern of results was mirrored in the effects of income, where those respondents with higher income levels, and in a higher occupational social class, reported high levels of control over

[12] Bonferroni tests highlighted that respondents' with higher education to degree level or above were significantly different to those respondents educated to below degree level in terms of their perceived interpersonal situational control ($p=.05$)

interpersonal situational resources (p=.05 and p=.05 respectively, Table 4.11). These findings seemingly reflect the social class bias reported in the visitor profile at museums and other heritage attractions. In this way, these findings suggest that respondents who are more highly educated have fewer difficulties in findings companions or needing situational stimuli in order to visit museums; that is, museum visits form a part of their recreational opportunity sets, and these individual have the cultural and social capital necessary to visit museums (Bourdieu 1974). Furthermore, that students were found to be significantly lower in their reported interpersonal control and significantly different from those respondents in social class I (p=.02 in Bonferroni tests) provides additional support for the above noted effects of age on interpersonal and symbolic resource constraints, in common with qualitative studies which have found younger respondents to perceive museums as not relevant for their stage in life (Walsh 1991).

Table 4.8: Effect of Socio-demographics on Interpersonal-Situational Control

	Socio-demographics		*Mean*	F value (df) significance
Effect of Education	no higher education	(n=103)	*2.7379*	3.008 (2)
	higher education below degree	(n=219)	*2.1005*	.05
	higher education degree or above	(n=78)	*3.4359*	
Effect of Household Income	£14,999 and below	(n=115)	*1.7217*	2.577 (3)
	£15,000-£24,999	(n=103)	*2.2039*	.05
	£25,000-£34,999	(n=89)	*2.5618*	
	£35,000 & over	(n=71)	*3.4648*	
Effect of Social Class	I	(n=60)	*3.667*	2.420 (4)
	II	(n=151)	*2.6281*	.05
	IIIn	(n=112)	*2.3214*	
	Student	(n=46)	*.8387*	
	Other	(n=31)	*2.3261*	

a. (II) The Effect of Residential Location and Car Ownership on Perceived Control

Although both Merrimen (1991) and Prince (1983) found that lack of access to private transport disproportionately decreased the propensity of individuals to visit a museum or take country trail excursion, findings from the present study suggest that lack of private transport has no impact on the perceived external time and planning resources required for museum visits. These findings are supported by Prentice (1993a) who found that although high

proportions of visitors to the Isle of Man did not have their own transport, they did not perceive this as a restriction on their ability to visit heritage attractions. Further, these findings likely reflect the holiday contexts of museum visits reported in Chapter 3.

Similarly, inner-urban and outer-urban residential location may determine the perceived supply of museum attractions locally and their proximal convenience. Merrimen (1991), for example, reviewed Canadian studies where proximity was identified as a structural constraint. Findings from the present study did not suggest that residential location or proximity to museum attractions were structural constraints affecting respondent's perceptions of external time and planning, interpersonal-situational or intrapersonal control (Table 4.6).

b. (I) The Effect of Museum Socialisation on Intrapersonal Situational Control

Bourdieu's (1984) notion of symbolic cultural capital reflects Shaw et al's (1991) idea of social structural constraints, and emphasises that socialisation acts as a prerequisite for individuals to understand the museum code, and for museum visits to form a valid component of individuals' recreation opportunity sets (Hood 1983, Bourdieu 1984). Falk and Dierking (1992), for example, have also noted that parents often visit museums with the specific desire to influence children's learning experiences, while other types of visitors were equally or more concerned with their own educational experiences. Further, Hood (1989) reviewed studies that demonstrated the importance of museum labels in promoting feelings of competence for museum visitors. In particular, Hood (1989) reported that parents wanted to appear knowledgeable and in control in the museum environment, especially if accompanied by children. Hood (1989) found that if the museum environment did not facilitate this, parents made up stories to demonstrate their competencies. Similarly, Holbrook et al (1984) found perceived competence to have a significant impact on play experiences, and, in particular, to affect positive affective responses.

The present study did not, however, find any evidence to suggest that individuals from different middle-class socio-demographic backgrounds varied in their perceptions of self-efficacy, or intra-personal awareness control. Furthermore, respondents who had differing levels of museum socialisation, as measured by the incidence of museum visits with the school or family group as a child, did not differ significantly in terms of perceptions of intrapersonal–awarenss control. These findings may be due to the class basis of the present sample, and further research is required to determine if differences in wider socio-demographic profile and levels of museum socialisation affect perceptions of intrapersonal control when a wider socio-demographic sample is examined.

b. (II) The Effect of Museum Socialisation on Interpersonal Situational Control

Museum socialisation was found to affect inter-personal situational control, or the need for companions and situational stimuli to prompt museum visits (see Table 4.12). As would be expected, interest in museums as a child was found to have a positive affect on perceptions of interpersonal-situational control (p=.002, see Table 4.12).

Table 4.12: Effect of Museum Socialisation on Interpersonal Situational Control

	Museum Socialisation		*Mean*	F value (df) significance
Interest in museums as a child	Interested	(n=208)	*3.0529*	6.108 (2)
	NSF or slightly disinterested	(n=129)	*2.4496*	.002
	Extremely or quite disinterested	(n=63)	*.9365*	
Effect of number of School Visits as a child	never	(n=145)	*3.4483*	5.625 (2)
	once a year or less	(n=195)	*1.9077*	.004
	2 or more times a year	(n=160)	*2.3000*	
Effect of number of family visits as a child	never	(n=122)	*3.2869*	3.962 (2)
	once a year or less	(n=126)	*1.7698*	.02
	2 or more times a year	(n=152)	*2.5395*	

In particular, individuals who were extremely or quite uninterested in museums as a child reported lower levels of inter-personal situational control than those respondents who had no strong feelings, or were interested to some extent in museum visits. This perhaps suggests that interest is a necessary prerequisite for constraint negotiation, as suggested by the balance proposition for leisure constraint negotiation (Jackson et al 1993). Further evidence

suggests that this may be the case: Respondents who supported museum-related leisure pastimes, and in particular read historical non-fiction books (p=.008), were a member of an historical organisation (p=.003), or had studied history (p=.02), on average reported higher levels of interpersonal–situation control (Table 4.9). As such, museum socialisation and museum related-lifestyle activates represent social structural constraints that affect an individual's perception of inter-personal situational constraints.

However, and somewhat contrary to expectations, those respondents who had visited museums *infrequently* with the school, or their family as a child, were disproportionately more likely to feel they needed a situational stimulus in order to visit museum, compared to both those respondents who had visited *frequently,* and those who *never* visited (school visit p=.004, family visit p=.02, see Table 4.12). Contrary to initial expectations, this non-linear relationship shows that respondents who had visited museum *infrequently* as a child with either their family, or their school, had relatively lower levels of inter-personal control than those who had *never* visited museums with their family or on school trips, and those who had *frequently* visited museums as school trips or with their family. These findings seemingly suggest that *infrequent* museum visits as a child, or moderate levels of museum socialisation, have resulted in relatively less inter-personal control. Consideration of these findings suggests that moderate socialisation has 'taught' those individuals who visited infrequently as a child that museum visits are a pursuit reserved for bad weather or other situational cues, while the relatively higher levels of control reported by those respondents who had little museum socialisation, or who never visited as a child, support findings from leisure studies that those individuals with little direct experience have *'less than realistic perceptions'* of the resources required to visit (e.g. Kay and Jackson 1991, Shaw et al 1991). Table 4.12 also shows that the non-linear effect of museum visits as a child confirmed, as expected, that those respondents who had high levels of museum socialisation perceived high levels of inter-personal control (see Table 4.12).

c. The Effect of Situational Visiting Context on Interpersonal Situational Control

Elsewhere, studies have suggested that large proportions of the population use museums more as a holiday resource than recreational non-holiday resource (Prentice 1993a). Partial support for these conclusions can be observed in Table 4.13 where it can be seen that individuals who exclude themselves from the tourist profile of museums were found constrained by interpersonal-situational resource allocation. In particular, Table 4.13 shows that respondents who do not use museum resources whilst on holiday, or do not visit museums to see new exhibitions, report lower levels of perceived interpersonal-situational control (p=.006 and p=.000, respectively).

Table 4.13: Effect of Situational Visiting Context on Interpersonal Situational Control

		Mean on Interpersonal Situational Control Domain	F value (df) significance
To visit a new exhibition	Yes (n=218)	1.6154	15.675 (1)
	No (n=182)	3.2844	.000
Whilst on holiday	Yes(n=299)	1.5149	7.670 (1)
	No (n=101)	2.8662	.000

d. Effects of Past Behaviour on Perceived Constraints and Control

The present study found some evidence to suggest that past museum visiting experience affects perceptions of interpersonal-situational control and to some extent intrapersonal-awareness control (Table 4.9). Elsewhere, past behaviour has been found to affect individual's intention to act (e.g. Bagozzi and Kimmel 1995, Bagozzi and Warshaw 1990, Bentler and Speckart 1979&1981, Fredricks and Dossett 1983), despite the strong arguments for a sufficiency hypothesis in *The Theory of Reasoned Action* which suggests that past behaviour is subsumed within (or mediated by) attitudinal and subjective normative beliefs (Ajzen and Fishbein 1980). In the present study, both recency of last visit (p=.001), and frequency of museum visits over time (p<.000), were found to affect perceptions of

Table 4.11: Effect of Museum Past Behaviour on Interpersonal-Situational Control Domain

			Mean Interpersonal-Situational Control Domain	F value (df) significance
Interpersonal Situational Constraints				
Effect of Recency of past museum visits	never/in the last 4 years	(n=82)	*.9756*	7.363 (2)
	over 6 months ago but in last 2 years	(n=154)	*2.7143*	.001
	in the last 6 months	(n=164)	*3.1220*	
Effect of frequency of past museum visits	never or< once every two yrs	(n=106)	*.8962*	18.971 (2)
	once every one or two yrs	(n=147)	*2.1837*	.000
	more than once a year	(n=147)	*4.0408*	
Intrapersonal Awareness Constraints				
Effect of frequency of past museum visits	never or< once every two yrs	(n=106)	*-.6415*	4.585 (2)
	once every one or two yrs	(n=147)	*-.9116*	.01
	more than once a year	(n=147)	*.2313*	

interpersonal–situational control (see Table 4.14). In both cases, a positive relationship was observed between recency and frequency and increasing perceptions of control. For example, respondents who had never visited, or who had visited a museum over two years ago, reported lower levels of control compared to those respondents who had visited museums once a year or more, who reported high average levels of interpersonal-situational control[13]. These findings support the expected high correlation between perceived control beliefs and past behaviour noted by Ajzen and Madden (1986) and Bandura (1986), who respectively have suggested that past behaviour reveals the situational opportunities and self-efficacy which make up perceived behavioural control, and further, that prior behaviour provides an important source of information about a person's control over behaviour.

Past behaviour, in terms of the frequency of visit within a specified time period, was the only variable that had any impact on intra-personal awareness resources in the present study. Although limited in magnitude, frequency of past visits, as might be expected, had a positive impact on the level of intra-personal awareness control (p=.01). In particular respondents who had never been or had not been in the last 2 years, and respondents who went to museums once a year or less were found on average to be constrained in term of intra-

[13] Bonferroni tests confirmed that individuals who visit museum once a year or more were significantly different from those who visit once a year or once every two years (p=.000) and those with had never visited or had visited over 2 years ago (p<.000). Further, those respondents who had visited infrequently (once every one or two years) were also found to be significantly different in their perceptions of interpersonal-situational control from those individuals who had never been or who had been over two years ago (p=.007).

personal awareness (see Table 4.14). In contrast, respondents who visited museum more than once a year reported on average control over intra-personal awareness resources.

To summarise, although perceptions of constraint and control were not found to vary by museum attraction type, individual characteristics, and in particular age, life-cycle, museum socialisation, leisure interests and museum past behaviour, were found to affect behavioural control beliefs in museum visiting. These factors as such represent social structural museum constraints identified by Shaw et al (1991) and, as shown in Table 4.6, social structural constraints were predominately manifest in inter-personal situational control. The following section examines the special case of social norms in museum visiting which have been conceptualised as a distinct form of potential constraint in the Theory of Reasoned Action and Planned Behaviour.

4.6 Normative Beliefs Attached to Museum Visits

Subjective normative influences in the Theory of Reasoned Action and Planned Behaviour aim to capture the perceived pressure from others to perform behaviour (Fishbein and Ajzen 1975, White et al 1994). As such, they can be seen to have either a facilitating or inhibiting effect on an individual's intention to perform a behaviour, such as museum visiting.

In museum studies, an understanding of the normative pressure perceived by individuals to visit museums is generally underdeveloped. To date, only a limited number of qualitative studies with museum non-visitors have attempted to understand the social normative impacts on museum visiting behaviour, and have noted the inhibiting effect of social influences for museum non-visitors. These studies have reported, for example, that museum non-visitors perceive museum visiting as *'not the sort of activity associated with people like themselves'* and *'as only being relevant for others'* (Walsh 1991, London Museum Consultative Committee 1991). Furthermore, quantitative museum studies have paid little attention to the normative pressures perceived by individuals, either visitors or

non-visitors. Where social influences of any kind have been measured in quantitative museum studies the emphasis has remained on the impact of relevant others during museum visits, and particularly on family interaction (e.g. Blud 1990a&b, McManus 1987&1988). As such, no attention in museum surveys has been given to the impact of social influences on an individual's decision or choice to visit a museum.

4.6.1. Social Normative Beliefs Associated with visiting Two Contrasting Styles of Social History Museums

In the present study children, partners, other family members and friends were identified as salient significant others in qualitative interviews. As might be expected, these referents correspond to the general group composition found at museums in other studies (e.g. Davis 1994,Prentice 1993a, McIntosh 1997).

When conceived as the pressure to perform an activity, empirical studies have found the predictive ability of subjective norms, or normative beliefs, to explain behavioural intentions to be mixed (Ajzen 1988, 1991). Ajzen (1991) attributed this lack of predictive ability to the peculiarities of specific populations studied or the type of behaviour examined. Others authors have disagreed with Ajzen's conclusions and have suggested that the social normative component of TRA and TOPB was inadequately conceptualised (White et al 1994, Grube et al 1986, Liska 1984, Boldero 1995, Trafimow and Fishbein 1995, Burnkrant and Page 1988 & 1982). White et al (1994), in particular, have argued that subjective norms as measured by Fishbein and Ajzen (1975) do not concur with other more widely adopted notions of social norms in social psychology, where social norms are seen as the implied rules of behaviour for specific groups and, as such, are consistent with social identity and self-categorisation theory. If White et al (1994) are correct, the effects of subjective norms, or normative beliefs, on intentions are likely to be subtler than the measurement of perceived pressure to perform the behaviour used by Fishbein and Ajzen (White et al 1994).

Several remedies to the perceived inadequate conceptualisation of social normative influences have been suggested and have included measures of significant others' regard for the behaviour as desirable or undesirable (social group attitude); whether significant others perform the behaviour themselves (social group behavioural norm) (White et al 1994); and personal behavioural norms (East 1993, Parker et al 1995). The present study did not measure personal or social group behavioural norms. However, the measure of *'approval'*, used in the present study, is similar in emphasis to the social group attitude measured by White et al (1994), and can be considered 'more subtle' than the traditional measure of whether referents believe a respondent *'should'* visit museums employed as the measure of normative belief in TRA and TOPB.

As such, in the present study respondents were asked to rate on 7 point scales, firstly, the extent to which each referent would approve of them visiting a museum, and secondly, the extent to which they were motivated to comply with the beliefs of referent, as measured by their concern to comply with the wishes of others.

Overall, Table 4.15 shows that the majority of respondents reported anticipated approval of museum visiting from all social referents. This facilitating influence was expected considering the middle-class basis of the sample (e.g. Policy Studies Institute 1996, National Audit Office 1995, Davis 1994, Merriman 1991, Prentice 1993a). As such, only a small number of respondents indicated anticipated disapproval. Looking at both museum sub-samples, Table 4.12 shows that disapproval was slightly higher for children (5.2%) and friends (4.3%), than for partners (3.5%) and other family members (1.8%). These findings perhaps reflect the likely shared interests of partners and family members and the higher social risks attached to friends. In terms of facilitating influences, partners and children held the greatest perceived support of museum visiting, with respondents anticipating 36.2% of partners and 34.9% of children to *'extremely approve'* of visiting museums.

Table 4.15: The Effect of Museum Style on Normative Beliefs

Normative Beliefs	Extremely Uniquely %	Quite Unlikely %	Slightly Unlikely %	Neither Likely or Unlikely %	Slightly Likely %	Quite Likely %	Extremely Likely %	χ^2 (df) Significance Cramer's V
Children Approval								11.979 (4)
Idea-Based Museum (n=136)	.....	.....	2.2	21.3	5.1	29.4	41.9	.02
Object-Based Museum (n=133)	.....	.....	4.5	18.0	14.3	35.3	27.8	.21
Partner Approval								9.326 (4)
Idea-Based Museum (n=182)	.....	.....	1.6	16.5	7.7	33.0	41.2	.05
Object-Based Museum (n=179)	.....	.....	5.6	20.7	12.3	30.2	31.3	.16
Other Family Approval								9.368 (3)
Idea-Based Museum (n=191)	.....	.....	.....	24.6	12.0	38.2	35.2	.03
Object-Based Museum (n=195)	.....	.....	....	32.3	19.5	29.2	19.0	.16
Friends Approval								12.477 (4)
Idea-Based Museum (n=200)	.....	.....	1.5	24.5	14.4	34.0	25.5	.01
Object-Based Museum (n=200)	.....	.....	7.0	31.0	15.5	29.0	17.5	.18

Weak, but significant, differences were found for expected approval when the idea and object based museum attraction styles were compared (see Table 4.12). This suggests social approval is dependent to some degree on museum attraction style. Table 4.12 shows that the approval of children was perceived to differ across the idea and object-based museum styles ($p<.02$). In particular, 60.0% of respondents reported children as *'extremely likely to approve'* of visiting the idea-based museum, while 73.1% of respondents believed children were only *'slightly likely to approve'* of visiting the object-based museum. These findings suggest that respondents thought children would find visits to the idea-museum as more appealing, or agreeable, than visits to the object-based museum.

The opinions of partners and other family members and friends followed a similar pattern across the two museum styles, suggesting the idea-based museum was generally more strongly supported across social referents than the object-based museum. Overall, these findings suggest that middle-class individuals were comparatively more constrained in terms of social facilitation they perceived to visit object-based museums, compared to the perceived positive normative pressure to visit the idea-based museums. These findings can be seen to reflect the different ways object and idea based museums have tended to promote themselves and the experiences they have chosen to facilitate. Idea-based museums actively

promote themselves as places for discovery and social interaction whilst traditional museums tend to promote the image of scholarly houses of excellence.

Although individuals may perceive social pressure to visit museum, this pressure may have little impact on a respondent's motivation to visit. This is because individuals vary in their motivation to comply with the normative beliefs held. Using seven point scales, respondents in the present study were asked to indicate the degree to which they were *concerned* or *unconcerned* with the opinions of each social group regarding museum visits. Generally, as shown in Table 4.16, respondents were not concerned with the opinions of each social group, suggesting that there was little social normative influence on museum visiting, or that the measurement scales used in the present study were too crude (White et al 1994). However, the present findings show that where concern to comply with the attitudes of social referents was expressed, it was more apparent for children (43.0% of respondents) and partners (39.7% of respondents) than for other family members (20.6%). This finding reflects the likely group composition for museum visits, where there are greater proportions of visits within a nuclear family group.

Table 4.16: The Effect of Museum Style on Motivation to Comply to Normative Pressures

Motivation to Comply	Extremely Unconcerned %	Quite Unconcerned %	Slightly Unconcerned %	Neither Concerned or Unconcerned %	Slightly Concerned %	Quite Concerned %	Extremely Concerned %	x^2 (df) Significance
Children (n=269)	31.0	6.7	2.6	16.8	11.6	18.3	13.1	NS
Partner (n=361)	32.7	8.4	5.3	14.1	13.9	18.0	7.8	NS
Other Family (n=286)	40.7	10.3	4.4	24.0	13.1	5.7	1.8	NS
Friends (n=400)	38.3	9.5	6.8	21.5	15.8	7.0	1.3	NS

As was expected from matched museum sub-samples, Table 4.16 shows that motivation to comply with social referents did not vary across museum sub-samples, demonstrating that 'concern' regarding the beliefs of others for museum visiting is a relatively stable personal characteristic unaffected by museum attraction type.

Normative 'approval' beliefs were multiplied with motivation to comply or 'concern' in order to measure their interactive effect and operationalise the normative beliefs as conceptualised in The Theory of Reasoned Action. There has been debate over the most appropriate scaling option to employ, which will be discussed in detail in Chapter 7. However, by far the most common scaling method for social normative beliefs has been a bi-polar scale for normative 'approval' beliefs (-3 to +3) and a uni-polar scale (1 to 7) for motivation to comply (concern) (East 1993). The uni-polar scale in this conceptualisation does not allow for motivation to comply (concern) to totally cancel the effects of the normative beliefs associated with different salient referents. This could only occur with a uni-polar scale from 0-6. As such, this conceptualisation attempts to give a small degree of weight to the normative influences that individuals may not be consciously aware of. Table 4.17 details the means for the product-based, or indirect measures, of normative beliefs associated with the four social referents.

Generally, Table 4.17 shows that a respondent's partner and children held the strongest facilitating normative influence for museum visiting, in both the idea and object-based museums. These findings confirms the earlier uni-variate analysis of approval beliefs (Table 4.15) and motivation to comply (Table 4.16), where it was concluded that the household or nuclear family represented the greatest social normative influence for museum visits. Interestingly, although motivation to comply and referent approval were individually found to be variably dependent on museum attraction type (see Tables 4.15 and 4.16), when they were combined, and account was taken of their interactive effect, the resulting product, or 'normative belief-product' (see table 4.17), was *not* found to be dependent on museum attraction type. Only the social normative influence of friends was found to be marginally dependent on museum attraction style (p=.04).

Table 4.17: The Effect of Museum Style on Indirect Belief Based Social Norms (or the product of normative beliefs and motivation to comply)

	Mean (Scale –21 to +21)	*t value (df) Significance*
Social Norms - Children		
Idea-based Museum	5.26	NS
Object-based Museum	4.37	
Social Norms - Partner		
Idea-based Museum	6.50	NS
Object-based Museum	5.54	
Social Norms - Other Family Approval		
Idea-based Museum	4.72	NS
Object-based Museum	3.74	
Social Norms – Friends		
Idea-based Museum	4.88	1.931 (398)
Object-based Museum	3.74	.04
Sum of Belief-Based Social Norms		
Idea-based Museum	21.350	1.993 (398)
Object-based Museum	17.380	.05

4.6.2. Structure and Dimensionality of Social Normative Referent Influences

Burnkrant and Page (1988) have criticised the conceptualisation of normative beliefs in TRA and TOPB for not taking account of learning experiences, the dynamics of storing information in memory, or the antecedents of normative beliefs. Burnkrant and Page (1988) suggested that normative information is likely to be organised in memory around contextual features, or familiar people or both (eg. Collins and Loftus 1975, Hayes-Roth 1977, Wickelgren 1981). In their study, Burnkrant and Page found social normative referent beliefs to be multidimensional rather than uni-dimensional, and for this dimensionality to be based on social family membership and perceived authority distinctions, confirming their ideas of contextually stored information. Further, within the framework of compliance theory (Kelman 1958), Burnkrant and Page (1988) examined the antecedents of normative pressure, in terms of rewards and punishments, and found that each referent belief was associated with potential rewards and punishment for complying with referents' beliefs.

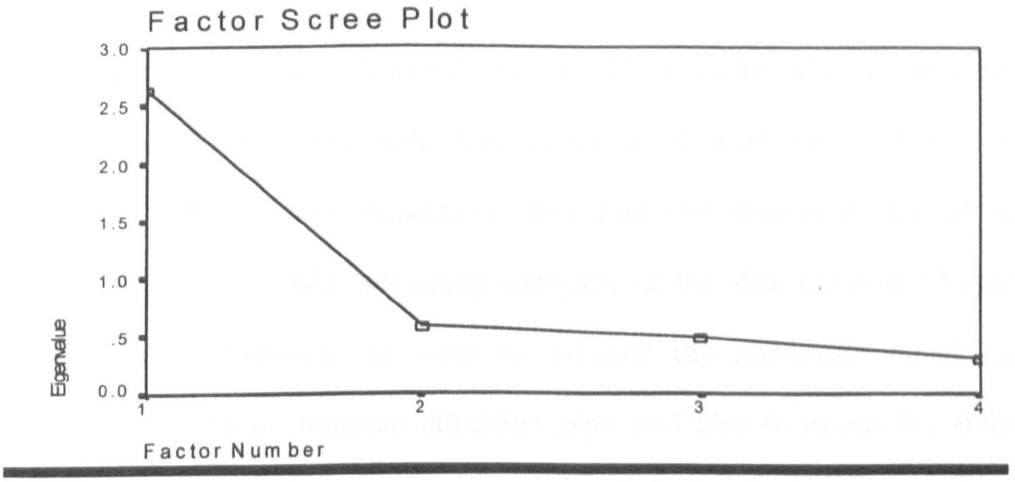
The present study sought to assess whether belief-based social normative influence were multi-dimensional (Burnkrant and Page 1988, White et al 1994) or uni-dimensional, as originally conceived in the Theory of Reasoned Action (Ajzen 1985, Ajzen and Madden 1987). However, this study did not extend to an examination of the antecedents of normative influences in terms of specific rewards and punishments, although the utility of this for future research is recognised, and represents one valid approach to conceptualising the effects of normative beliefs on an individual's choice to visit museums.

4.6.2.1 Exploratory Principal Component Analysis

Exploratory principal component analysis (EPCA) with varimax rotation was conducted to assess the potential dimensionality of belief-based social normative influence. As earlier analysis had found social normative referent beliefs to be independent of museum attraction type (see Table 4.14), EPCA was conducted on the total sample (N=400).

The social normative referent data was found to be acceptable for EPCA, with a ratio of one hundred observations to one variable considerably above the five to one ratio recommended by Hair et al (1995), and a rejection of Bartlett's sphericity test of variable independence at $p<.0000$. The Kaiser-Meyer-Olkin value of .7720 was well above the minimum criteria of .50 and, in terms of the criteria offered by Kaiser and Rice (1974), the data was considered 'middling', being above .70. The eigenvalue > 1 criteria suggested that there was one principal component explaining 65.8 % of the variance in the social normative data. The scree plot shown in Figure 4.3 suggested that two dimensions might more appropriately explain the structure of social normative influence on museum behaviour. Indeed, initial statistics from the principal component analysis showed that a second principal component would add an additional 14.6% of explained variance in the data. As such it was decided to examine both the unidimensional (one factor) model, suggested by the eigenvalue >1, and the multi-dimensional (two factor) model, suggested by the scree plot test.

Figure 4.3: Scree Plot for Social Norms



To examine the two-factor model of social normative influences, a second exploratory principal component analysis with varimax rotation was undertaken (see Table 4.18). Table 4.18 shows that the two principal component factors derived clearly distinguish between social normative influences found in the home and those social influences from outwith the home environment.

Table 4.18: Rotated Matrix for Two Principal Components of Social Normative Influence

	Component 1: Non-household Social Influences	Component 2: Household Social Influence
Explained variance	*65.8%*	*14.6%*
Friends	.87392	
Other family	.85536	
Children		.91788
Partner		.65368
Alpha Coefficient	***.8100***	***.6802***

The two factor components were found to have acceptable reliability. Non-household influences (principal component 1) were found to have an alpha reliability of .8100, while household social influences had an alpha reliability of .6802. Both dimensions achieved alpha reliability coefficients above the .6 level required for exploratory studies (Nunnally 1978, Otto and Ritchie 1996).

Confirmatory factor analysis (CFA) was used to examine whether normative beliefs were best represented by uni or multi-dimensional (two) latent construct(s). Figures 4.4 and Figure 4.5 detail the hypothesised uni and multi-dimensional models of museum visiting normative beliefs. Multiple-group analyses, on the idea and object based museum sub-samples, were employed in order to evaluate the previously noted independence of normative beliefs on museum attraction type, and also to assess the ability of the CFA model(s) to describe the structure of normative beliefs in both museum sub-samples.

The resulting global fit statistics for the two-dimensional models were found to be acceptable ($x^2 = 3.49$, df = 2, p=.17, $x^2/df = 1.75$, GFI = .99, AGFI =. 91, RMSEA= .04, TLI = .93, CFI = .99, NFI = .98). For both museum sub-samples, there were no negative or non-significant error variances or standardised residuals of above 2.0 that would suggest model mispecification. Further, standard errors for the measurement of each latent construct were small and within acceptable limits; factor loadings for the regression of the observed variables on the latent constructs were significant and above the required .5 level; and measurement reliabilities in the models were acceptable. Together these findings suggested that the models had good convergent validity[13] (Selnes 1998, Gerbing and Andersen 1992, Anderson and Gerbing 1988).

However, examination of the standard error for the correlation between the two latent normative constructs, *'family'* and *'out of home'*, revealed that these were high and above 3.0 and 4.0 in the idea and object-based museums, respectively. In addition, the correlation between the two latent normative constructs where high in both the idea (.77) and object-based museums (.92), and as such approached or exceeded the acceptable level of .9

[13] For *'family'* and *'out of home'* latent constructs the composite reliabilities were .74 and .81 in the idea-based museum sub-sample, and .65 and .81 in the object-based museum sub-sample. Variance Extracted in the idea based museum was.59 and .64 for *family'* and *'out of home'* latent constructs, and .49 and .71 in the object-based museum sub-sample.

Figure 4.4: **Two Dimensional Model of Normative Beliefs**

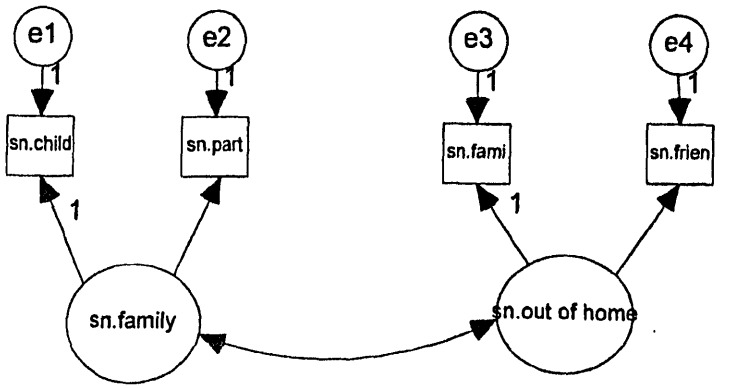
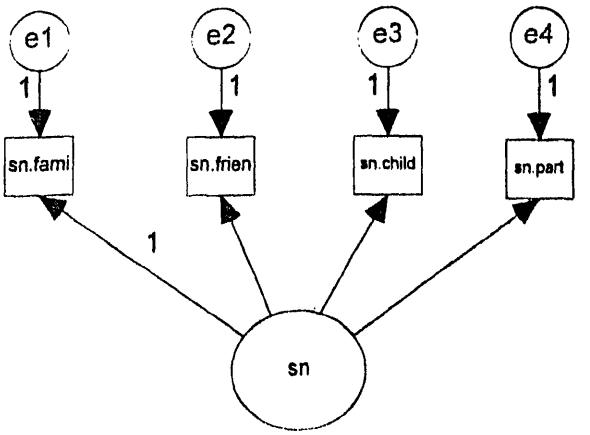


Figure 4.5: **One Dimensional Model of Normative Beliefs**



suggested by Hair et al (1995). These findings show that there was little initial support for the discriminant validity of the two-dimensional normative belief model.

Several other tests confirmed that there was little overall support for the discriminant validity of the two dimensional model based on the conflicting results of several discriminant validity tests. In the first instance, the correlation between *'home'* and *'out of home'* was constrained to unity (1.0) and the x^2 difference between the nested models observed. Findings suggested that there was discriminant validity between the two construct in both the idea ($x^2/2=27.66$, $df/2=1$, $p<.00$) and object-based museums ($x^2/2=16.61$, $df/2=1$, $p<.00$)[14]. However, support for discriminant validity was not found in other tests employed; for both museums the correlations between *'home'* and *'out of home'* latent factors were found to include 1.00 within +/- two standard errors (Bagozzi and Kimmel 1995, Selnes 1998, Anderson and Gerbing 1992); and the measures of variance extracted for each latent variable did not exceed the square of the estimated interfactor correlation between the two latent constructs (Babin and Boles 1998). Only for the *'out of home'* latent construct in the idea-based museum did variance extracted exceed the square of the estimated interfactor correlation between the two latent constructs.

Overall, the conflicting results for the two-dimensional model suggested that normative beliefs might be better represented as an uni-dimensional construct. Figure 4.5 details the hypothesised uni-dimensional model used to test whether the four measures of normative beliefs can be explained by one higher-order construct. The resulting global fit statistics for the model were not found to be acceptable ($x^2=15.65$, $df=4$, $p<.00$, $x^2/df=3.91$, RMSEA = .09, GFI=.96, AGFI=.80, TLI=.73, CFI=.91, NFI=.89), and examination of the standardised residuals could not identify any problematic observed variables or model mispecification. An examination of the modification indices did suggest that the model

[14] In order for discriminant validity to be verified the Chi-square value for the unconstrained model needs to be significantly lower than the Chi-square value observed for the constrained model (Bagozzi and Philips 1982).

could be improved if the measurement errors associated with partner and children referent beliefs were allowed to correlate. This suggests that the two observed variables (partner and children beliefs) were related in a way not accounted for in the uni-dimensional factor structure[15]. To find that children and partner normative beliefs influences were related in a way not represented by a uni-dimensional structure is not surprising, when it is considered that the family unit has been found to be a popular group composition in visitor studies (e.g. Davies 1994).

A second iteration of the uni-dimensional model was undertaken which allowed the residual errors for the normative beliefs of partner and children to correlate. Goodness of fit indices suggested that the model was acceptable (x^2=3.49, df=2, x^2/df=1.75, p=.17, GFI = 99, AGFI = .91, RMSEA = .04, TLI=93, CFI= 99, NFI = .98), and that overall the one-dimensional confirmatory model fit both idea and object based museum data.

Examination of the measurement model for the uni-dimensional model with correlated residual variables was found to have acceptable convergent validity. All factor weightings were found to be significant and above the recommended .5 level, and reliability, in terms of latent variable composite reliability (.81 and.83, in the idea and object museum sub-samples respectively), and variance extracted reliability (.53 and .56 in the idea and object-based museum sub-samples respectively) were good, and above the recommended levels of .6 and .5 respectively. However, the individual reliabilities associated with the normative beliefs of children (.34) in the object-based museum, and children and partners (.35 and .35, respectively) in the idea-based museum, were found to be less than desirable and showed that the latent normative belief construct explained less than 50% of the observed variance in these variables. These low individual reliabilities highlighted that the measurement of

[15] That modification indices suggest that the two residual variables associated with children and partner normative influences should covary, demonstrating that these two normative influences were related in a way not accounted for in the uni-dimensional factor structure. However, that the two dimensional model shown in Figure 4.4 did not achieve acceptable discriminant validity, suggests that these two referent influences are not distinctive enough from those of family and friends for a 2 dimensional normative structure to be accepted.

these constructs could be significantly improved, suggesting that the present study in common with other studies operationalising the Theory of Reasoned Action, may have measured normative beliefs too crudely. However, due to the exploratory nature of the present research, the uni-dimensional model of normative beliefs was accepted.

Inspection of the uni-dimensional model shows that the latent normative variable loaded highly on the normative beliefs associated with friends and family. Furthermore, the correlated error variables between the residual variables of children and partner normative influences were positive (.36 and .12, in the idea and object-based museum respectively), and consistent with expectations that any unexplained variance in normative observed variables for children and partners would be in the same direction so as to reflect the influence of home-based normative pressures associated with the proximity influence (i.e. at home), or group composition of museum trip decision making.

4.6.2.3 Effect of Museum Attraction Style on Normative Belief Structure

The two museum sub-samples were examined to assess whether the uni-dimensional model of normative referent beliefs was independent of museum attraction style. Firstly the factor loadings matrix in each of the museum sub-samples was constrained to be equal. Findings showed that the Chi-square difference ($x^2/2$) was not significant at 2.27[16] with three degrees of freedom[17] ($p>.10$), providing strong support to suggest that factor loadings for the individual normative beliefs in each museum sub-sample did not differ in their regression on the normative referent latent construct. This observed equivalence in the factor loadings matrices across the two museum sub-samples suggests, for example, that a unit change in the normative belief latent construct would be associated with the same degree of change in the normative influence of partners in both the object and idea-based museum sub-samples.

[16] $x^2/2 = 5.76 - 3.49 = 2.27$
[17] $df/2 = 5-2 = 3$

In addition the variances in the aggregate normative belief dimension ($x^2/2 = 0.89$, $df/2=1$, $p>.10$), and in the residual variables associated with observed variable were found to be unaffected by museum attraction type ($x^2/2 = 0.50$[18], $df/2 = 4$[19], $p>.10$). These findings show that the overall range of normative beliefs felt by respondents in terms of pre-visit facilitating or constraining influences does not depend on the type of museum attraction respondents were evaluating. As would be expected, the variance-covariance matrices for the four referent beliefs were found to be equal in the two museum sub-samples ($x^2 = 5.719$, $df=9$, $p =.77$, $x^2/df=.64$, RMSEA = .00, GFI = .99, AGFI =.97, TLI = 1.03, CFI = 1.00, NFI = .96), confirming that the two museums could be pooled.

To summarise, the present findings have shown that normative beliefs were not multi-dimensional or complex in nature. This shows that normative beliefs associated with museum visiting were not stored differently in memory and were not associated with different contextual cues (as measured by museum interpretative style). However, that the residual variables associated with partner and children were found to correlate significantly suggests that there was some limited distinction based on familiar people associated with normative beliefs held for museum visiting. At present, however, this distinction does not achieve discriminant validity.

4.7 Factors Influencing Museum-Visiting Normative Beliefs

As a preliminary examination for the likely sufficiency of normative beliefs in capturing the effects of sub-group differences, such as social class, education, and age, on intention to visit museums, this study sought to identify whether normative beliefs were 'dependent' on sub-group differences in the middle-class sample of Edinburgh residents studied. The normative beliefs of partner, children, friends and family were added together in order to construct a surrogate measure to capture the combined effects of these four referents.

[18] $x^2/2 = 6.86 - 6.36 = 0.50$
[19] $df/2 = 10 - 6 = 4$

Table 4.19: The Effect of Socio-Demographics on Normative Beliefs

	Summated Score	Children	Partner	Other Family	Friend
Respondent's Socio-demographics					
Gender	-	-	-	-	-
Age	7.229 (2) .001	6.208 (2) .002	6.991 (2) .001	-	-
Education	-	-	-	-	-
Income	-	3.403 (3) .02	7.568 (3) .000	-	-
Social Class	-	3.389 (4) .01		-	-
Household	9.508 (4) .000	18.597 (4) .000	6.715 (4) .000	-	-
Car Ownership	5.645 (2) .004	4.688 (2) .01	7.442 (2) .001	4.134 (12) .02	-
Residential Location	3.851 (1) .05	-	8.280 (1) .004	6.130 (1) .01	-
Respondent's Socialisation					
Parent's Education	-	-	-	-	-
Father's Occupation at 10yrs old	-	-	-	-	-
Visits with family as a child	-	-	-	-	-
Visits with School as a child	-	-	-	-	-
Interest as a child	-	-	-	-	-
Interest of Parents as a child	-	-	-	4.896 (1) .03	-
Museum Past Behaviour					
Recency of last visit	5.094 (2) .007	-	4.087 (2) .02	-	4.087 (2) .02
Frequency of visits	12.626 (2) .000	4.140 (4) .003	3.491 (4) .008	5.000 (4) .001	-
Thought about visiting	-	-	-	-	-
Situational Behaviour					
Day trip	-	-	-	-	-
VFR	14.704 (1) .000	-	-	18.992 (1) .000	10.979 (1) .001
Holidays	7.067 (1) .008	-	-	4.335 (1) .04	4.092 (1) .04
New Exhibition	-	-	-	-	-
Re-visit	-	-	-	-	-
Rainy Day	8.141 (1) .005	-	-	-	-
Occupy Children	-	15.603 (1) .000	9.051 (1) .003	-	-
Lifestyle Museum Related Behaviour					
Genealogy	-	-	-	5.128 (1) .02	-
Historical Re-enactments	-	-	-	-	-
Read historical books	-	-	-	-	-
Member of historical Organisation	-	-	-	-	-
Kept a Collection	-	-	-	-	-
Watch historical documentaries	-	-	-	-	-
Watch historical fiction	-	-	-	-	-
Studied history	-	3.829 (2) .02	3.778 (2) .02	3.478 (2) .03	-

Information given in each cell: F value (df)
Significance Level

Table 4.19 details the possible 'effects' of socio-demographics, socialisation and lifestyle differences on overall normative beliefs. In addition, in order to identify from which referent socio-demographic and other sub-group differences in overall normative beliefs

originated, Table 4.19 details the effect of sub-group differences on the four individual referents.

Overall, Table 4.19 shows that education, occupational middle class, income, general childhood cultural socialisation, museum specific socialisation and museum related lifestyle activities had no significant impact on the normative beliefs held by respondents in the present sample. This is likely due to the class basis of the present survey and future studies, where a broader social mix of respondents are considered, needs to assess whether these social cultural variables affect normative beliefs. However, strong and significant effects were noted for non-cultural based demographic characteristics, including age and family life-cycle, as well as past experience of visiting museums and the different situational contexts to which respondents use museum trips.

a) The Effects of Age and Family Lifecycle on Normative Beliefs

As would be expected the aggregated normative beliefs of respondents over 35 years old and respondents who had dependent children, or had children who have left home, were higher on average than younger respondents aged 18-34 years old, single people and couples with no children ($p<.000$ and $p<.000$ respectively, see Table 4.20). Table 4.20 highlights that these facilitating normative pressures on museum visits were attributable to home-based normative beliefs, or the proximal influences of children and partner referents. In particular, Table 4.18 shows that the influence of family life-cycle was particularly strong for families with dependent children under 7 years old. In terms of the combined influence of referent

Table 4.20: Effect of age and household type on Normative Beliefs (N=400)

		Mean	F value (df) significance
Age Effects			
Aggregated Social Normative Beliefs	18-34 years (n=117) 35-54 years (n=178) 55 plus year (n=105)	13.5214 21.8371 21.6762	7.229 (2) .001
Children Normative Beliefs	18-34 years (n=117) 35-54 years (n=178) 55 plus year (n=105)	1.9915 4.4181 4.0762	6.208 (2) .002
Partner Normative Beliefs	18-34 years (n=117) 35-54 years (n=178) 55 plus year (n=105)	2.8632 5.4944 4.0762	6.991 (2) .001
Effects of Lifecycle and Presence of Children			
Aggregated Social Normative Beliefs	single (n=97) couple with no children (n=51) have children under 7 yrs (n=61) have children 7 yrs and over (n=92) have children who have left home (n=99)	11.1546 13.6863 27.3770 22.1957 22.7576	9.508 (4) .000
Children Normative Beliefs	single (n=97) couple with no children (n=51) have children under 7 yrs (n=61) have children 7 yrs and over (n=92) have children who have left home (n=99)	.8646 .3529 7.0164 5.4891 4.13`3	18.957 (4) .000
Partner Normative Beliefs	single (n=97) couple with no children (n=51) have children under 7 yrs (n=61) have children 7 yrs and over (n=92) have children who have left home (n=99)	2.2680 2.1765 3.7541 2.7500 3.7172	6.715 (4) .000

pressure, Bonferroni tests confirmed that single people were significantly different from respondents with dependent children under 7 years old ($p<.000$), respondents with dependent children over 7 years old ($p=.001$), and respondents whose children have left home ($p<.000$).

b) The Effects of Situational Use Context on Normative Beliefs

Table 4.19 shows that the situational use context of museum trips moderated the impact of overall (or combined) normative beliefs, particularly for museum visiting associated with taking or accompanying visiting friends and relatives to museums ($p<.000$); using museums as a place to occupy the children ($p=.001$); and visiting museums whilst on holiday ($p=.009$).

As might be expected, respondents who use museums as a resource to occupy children on average had a higher level of positive normative influence compared to respondents who did not use museum for this resource ($p<.001$). Table 4.21 shows that this moderating effect for the situational use of museum visit to occupy children was associated with the home based normative influences of the respondent's children and partner ($p<.000$ and $p<.003$ respectively). Similarly, using museum trips as somewhere to take visiting friends and relatives and visiting museum whilst on holiday were found to have a positive moderating effect on aggregate normative beliefs (see Table 4.21). Unlike the situational context of occupying children, the situational-use context of visiting friends and relatives was associated with the normative pressure of family and friends (see Table 4.21). In particular, and as would be expected, there were significant positive normative pressures associated with friends ($p=.001$) and family ($p<.000$) for museum trips taken with visiting friends and relatives, and significant positive effects for the normative influence of friends on the likelihood that individuals take museum trips whilst on holiday ($p=.02$).

Table 4.21: Effect of age and household type on Normative Beliefs (N=400)

		Mean	F value (df) significance
Occupy Children			
Aggregated Normative Beliefs	Do not visit to occupy children (n=301) Use museums as a resource to occupy children (n=99)	17.5183 24.9697	10.621 (1) .001
Children Normative Beliefs	Do not visit to occupy children (n=301) Use museums as a resource to occupy children (n=99)	2.9400 5.6667	15.603 (1) .000
Partner Normative Beliefs	Do not visit to occupy children (n=301) Use museums as a resource to occupy children (n=99)	3.9169 6.0000	9.051 (1) .003
Take Visiting Friends and Relatives			
Aggregated Normative Beliefs	Do not visit with VFR (n=249) Visit museum with VFR (n=141)	16.6104 23.9007	12.899 (1) .000
Friends Normative Beliefs	Do not visit with VFR (n=249) Visit museum with VFR (n=141)	2.1767 4.2318	18.992 (1) .000
Family Normative Beliefs	Do not visit with VFR (n=249) Visit museum with VFR (n=141)	3.8795 5.3444	5.599 91) .02
Visit while on Holiday			
Aggregated Social Normative Belief	Do not visit while on holiday (n=101) Visit museums while on holiday (n=299)	17.1885 20.6339	6.904 (1) .009
Friends Normative Beliefs	Do not visit while on holiday (n=101) Visit museums while on holiday (n=299)	3.1683 4.6890	5.731 (1) .02

c) The Effect of Past Behaviour on Normative Beliefs

Table 4.22 shows the significant effects past behaviour, as measured by frequency and recency, on overall normative beliefs ($p<.000$ and $p=.007$ respectively). Both recency and frequency had a positive impact on the magnitude of normative pressure perceived by respondents, with those respondents who had visited a museum recently, and those who visited museums frequently, reporting on average higher levels of normative pressure to visit (see Table 4.22). For example, Bonferroni tests showed that those respondents who visited museums more than once a year were found to be significantly differently from those respondents who visited museum once a year, or once every two years ($p=.002$), and those who had never visited, or had visited over two years ago ($p<.000$). Similarly, in terms of recency of visit, those respondents who had visited a museum in the last 6 months were

found to be significantly different from respondents who had never visited or visited over four years ago (p<. 000). The effects of frequency of past visit on aggregate normative beliefs was found to be the the result of the normative pressures to visit museums exerted by respondent's children (p<. 000), partner (p<.000) and other family (p=.005, see Table 4.22). In contrast, the effects of recency on aggregate normative beliefs were found to be associated with other family (p=.008) and friends (p=.02), and as such are likely to also reflect the situational use contexts of museum visits for visiting friends noted earlier.

Table 4.22: Effect of Museum Past Behaviour on Interpersonal-Situational Control Domain

			Mean	F value (df) significance
Recency of Last Visit				
Aggregated Normative Beliefs	never or< once every two yrs	(n=106)	*14.6951*	5.094 (2)
	once every one or two yrs	(n=147)	*18.1558*	.007
	more than once a year	(n=147)	*22.8293*	
Partner Normative Beliefs	never/in the last 4 years	(n=82)	*2.9512*	4.896 (1)
	over 6 months ago but in last 2 years	(n=154)	*4.1818*	.008
	in the last 6 months	(n=164)	*5.4085*	
Family Normative Beliefs	never or< once every two yrs	(n=106)	1.9512	4.087 (2)
	once every one or two yrs	(n=147)	2.5584	.02
	more than once a year	(n=147)	3.5061	
Frequency of Museum Visits				
Aggregated Normative Beliefs	never or< once every two yrs	(n=106)	*13.4340*	12.620 (2)
	once every one or two yrs	(n=147)	*17.6122*	.000
	more than once a year	(n=147)	*25.3878*	
Children Normative Beliefs	never or< once every two yrs	(n=106)	*3.4623*	4.410 (2)
	once every one or two yrs	(n=147)	*3.7823*	.003
	more than once a year	(n=147)	*6.8095*	
Partner Normative Beliefs	never or< once every two yrs	(n=106)	*3.8113*	3.491 (2)
	once every one or two yrs	(n=147)	*5.7415*	.008
	more than once a year	(n=147)	*7.8912*	
Other Family Normative Beliefs	never or< once every two yrs	(n=106)	*3.0660*	5.000 (2)
	once every one or two yrs	(n=147)	*4.1497*	.001
	more than once a year	(n=147)	*5.1429*	

To summarise, the present analysis suggests that normative beliefs capture age, lifecycle, museum situational use-context and museum past visiting experience differences in the middleclass population studied. This provides an initial level of support to suggest that norms add to the ability of TRA or TOPB in being 'sufficient' in explaining museum intention. Further, Bagozzi and Kimmel (1995) suggest that in the search for additional explanatory components beyond attitude in multi-attribute intention models, past behaviour

can operate as a methodological artefact which can account for any conceptual omission in the theory. From the present study, it is clear that past museum experience and normative beliefs are strongly related. As such, if normative beliefs had not been measured in the present study, that is, if the study had only aimed to measure expectancy-value theory, the potential ability of past experience to explain a variance in museum visiting intentions would be increased.

Summary and Conclusions

Overall, the present chapter has shown that perceived museum constraints and control are multi-dimensional and consist of three principal factors: namely, external time and planning resources, interpersonal situational and intra-personal awareness constraints and control. These correspond to Godbey's (1987) typology of leisure constraints as well as ideas of self-efficacy commonly associated with perceived behavioural control in the Theory of Planned Behaviour (Ajzen 1991).

Normative beliefs were considered as a special case of museum pre-visit experience. Normative beliefs were generally found to be facilitating in orientation, although the majority of respondents in the present study reported little motivation to comply with perceived referent approval, perhaps reflecting the impact of internalised middle-class values in the present study. Normative beliefs, unlike perceived constraints and control, were not found to be multi-dimensional in nature, suggesting that normative beliefs associated with different referents are stored in the same way in cognitive memory. However, there was some limited but non-conclusive evidence to suggest that the influences of home-based referents on museum visiting differed systematically from referents from outside the home, as has been found elsewhere (Ryan and Bonfield 1980).

Museum attraction type, as measured by the idea and object-based museum, was not found to interact with perceived constraints and control, or normative beliefs. These findings suggest that museum attractions are homogeneously conceived by middle-class respondents in this regard, and that programmes aimed at managing museum resource deficiencies and normative facilitators in order to develop the museum demand, may effectively be achieved at a general ABC1 level associated with changes in public policy, as well as at an attraction specific level.

Although museum attraction type did not affect an individual's pre-visit experiences, respondent's age, life-cycle, museum socialisation and museum past behaviour were found to have a very limited, but significant, affect on both perceptions of behavioural constraint and control in museum visiting and perceived normative pressures to visit when measured as an interactive composite of perceived normative pressure and motivation to comply with the wishes of referents. These demographic characteristics were as such conceptualised as *social-structural* museum constraints, similar to those identified by Shaw et al (1991).

However, other socio-demographic characteristics which have been related to leisure consumption in outdoor recreation, including education and occupation for example, were not found to be useful in explaining differences in either the normative or constraint-control beliefs held by respondents towards museum trips. The Chapter concluded that this lack of association between perceived constraint/control or normative influences reported by respondents who varied in terms of social class related characteristics, was likely due to the white-collar household basis of the present sample. Further, research is needed to

determine whether normative influences and perceived constraints and control can be seen as independent of education, income and occupational differences in the population.

Introduction

The last chapter identified the *interpersonal, intrapersonal* and *external* resources respondents associated with museum visiting, and suggested that an individual's experience of these museum related resources defines the individual as either *constrained* (when they lack these resources), or in *control* (when they hold or did not need these resources), in terms of museum visiting. Resources, as constraints or control, were hypothesised to have a motivational impact on an individual's propensity to visit socio-history museums, acting as either a *de-motivator* or as a *facilitator.* As such, perceived resource requirements describe an individual's *'resource disposition'* to visit museums in terms of the time, money, knowledge, effort and availability of friends. However, a positive resource disposition, as shown in The Theory of Planned Behaviour (see Chapter 1 Figure 1.1), is not sufficient for realising museum visits as it does not identify, or explain, the *desires, reasons or motivations*[1] which account for why individuals choose, or desire, to visit or not to visit museums.

Expectations or the anticipated outcomes of a museum visit, have been described as *'the unspoken construct'* (Falk and Dierking 1992, p12) that mediates the physical (situational environment) and the personal contexts (constraints and control) in the *Interactive Museum Experience Model* (Falk and Dierking 1992). By focusing at the level of awareness and knowledge (beliefs), *anticipated outcomes* or *expectations* explain the rewards that individuals see in museum attractions. Anticipated outcomes, or expectations, can be seen

[1] Motivation is a catchall phrase, which in the literature has been seen, to include attitudes, expected outcomes, needs, wants, wishes, drives, reasons, motives and values. While some of these concepts are used synonymously others are considered (Holbrook and Hirschman 1986) and considerable disagreement exists over the content and parameters of these terms (Gnoff 1997, Matahoo 1989, Holbrook and Hirschman 1986). It is beyond the scope of the present study to discuss the varied use of these terms, however, when employed, the author will define their content and emphasis. Motivation is operationalised in the present study as the expected-value (outcome beliefs) or the antecedents of an individual's attitude towards visiting a museum, in common with expectancy value theory (Fishbein and Ajzen 1975), and *The theory of Reasoned Action* (Fishbein and Ajzen 1977) and *Theory of Planned Behaviour* (Ajzen 1991) in particular.

as a key component of *'consumption readiness'*, that provides a partial explanation of why some individuals choose museum visits above other leisure opportunities, while other individuals see alternative leisure opportunities as more attractive, and for this reason remain latent consumers in the museum market place. Representing 'pull' factors (Crompton 1979, Dann 1977) or the 'image' of museums held by individuals, expectations or anticipated outcomes draw (or repel) individuals to (or away from) the museum context in order to satisfy their needs, wants and motives (Bagozzi 1988, Moutinho 1987, Fishbein and Ajzen 1975).

As noted in Chapter 1, Goodhall (1983), over a decade ago, defined the core product of heritage attractions as the intangible experience it provides. Subsequent and increasing confirmation of experience attributes or outcomes as the ultimate motivational goal of consumers (e.g. Fitchett and Saren 1997, Prentice 1997, Davies and Prentice 1995, McLean 1993&1994&1995, Prentice 1993 a&b, Pocock 1992) has placed museum management in the realms of *experience-based management* (Manfredo et al 1996, Manfredo and Larson 1993, Manfredo et al 1983) or *'experience engineering'* (Mannell and Iso-Ahola 1987, Toffler 1970). *Expectations*, within the context of experience-based management, and the present Chapter, refer to an individuals assessment of the probability of experiential outcomes being found in a museum, and indeed, other tourism or leisure contexts.

It is generally agreed that individuals hold expectations of the experiences on offer in museum settings (Prentice et al 1997, Harrison 1997, Soren et al 1996, Gnoth 1997, Duhaime et al 1995, Soren et al 1995, Falk and Dierking 1992, Pocock 1992, Edwards et al 1990). However, although an increasing number of studies have begun to explore the experiences visitors report *while at museums* (Prentice et al 1998, Fitchett and Saren 1997, Manfredo 1996, Beeho and Prentice 1995, Duhaime et al 1995, Merriman 1991, Blud 1990 a&b, McManus 1989&1988&1987, Hood 1990&1983) and other tourist attractions (e.g. Prentice et al 1998a, Beeho and Prentice 1997 Boterill and Crompton 1997), to date there is little understanding of how past visits to museums are integrated into the individual's

cognitive structures over time. Notable exceptions have included: McManus (1993), who examined individuals' semantic, procedural and episodic memories of visits using unstructured visitor interviews; and Goddard (1994), building on the work of McManus, who found memories of museum visits to include descriptions of exhibits, feelings (e.g. enjoyment and surprise) and thoughts, and concluded that visitors had reflected on what they had seen. In addition, Soren (1995) has examined the impact of general images of scientists and the expectations of museum facilities on the experiences gained by visitors to science museums. Pertinently, Pocock (1992) among others (e.g. McInnis and Price 1987 & 1990) has noted that expectation, or image, affects an individual's actual experience of place (or museum/heritage site). These studies further stress the importance of explaining the images or expectations of potential visitors in order to understand and manage the museum experience offered to the public.

Within this context, the present Chapter describes the experience opportunities middleclass respondents perceived in the idea and object-based museum styles examined. In doing so, this Chapter will determine whether individual anticipated museum experiences can be grouped empirically, as a series of latent dimensions, useful to summarise, or identify, the 'structure' of 'overall' anticipated museum experience. Furthermore, the present Chapter sought to identify the impact of the anticipated museum interpretative environment on both the level (or intensity) of perceived experience opportunities, and the structural grouping of these experience outcomes. In addition, the present Chapter will examine whether other 'determinants' of anticipated museum experience beyond the museum environment, including an individual's socio-demographic characteristics, museum-related pastimes and usage occasion of museum visits, are useful for developing targeted promotions or product development. In this way, this Chapter will test implicitly the utility of socio-demographic and 'reasons for visiting' classifications traditionally used by museum professionals to disaggregate demand for museum visits.

5.1 The Experiences Perceived in Two Contrasting Social History Museums

As detailed in Chapter 2, two contrasting styles of socio-history museums, the *idea-based* and *object based*, were presented to respondents in the form of pictorial collages of individual exhibits and general museum spaces[2].

The *experiential images*, or anticipated experiential opportunities, were measured by asking respondents to rate on a seven-point scale, the subjective probability that the forty-two salient experiential attributes measured in the quantitative schedule would be found in the two styles of socio-history museum examined. Before completing this section of the interview schedule, respondents were asked to spend a few minutes studying the museum collage and to imagine what it would be like to visit a museum like the one shown.

Table 5.1 profiles the *likelihood* (or *subjective probability*) of the forty-two salient experiential outcomes being found in the idea and object-based museum styles. Overall, the predominant image of the idea-based museum held by respondents was that of an unthreatening, comfortable and easy to understand environment, with a wide range of

[2] The experience of visiting a museum includes the interaction of an individual with the museum building (including entrance, cloak halls and ticket offices), the exhibition, retail facilities (including gifts shops and restaurants), personal amenities (toilets, ramps etc.), staff and other customers, as well as the organisational structure and culture (Maesberg and Silverman 1996, Soren et al 1996, Duhaime et al 1995, McLean 1993, Johns and Clark 1993). Only when all of these elements are measured will the totality of the expected experience be measured.
As noted elsewhere in the present study, museum and heritage studies to date have concentrated on range and intensity of experiential outcomes gained from interaction with museum exhibitions (e.g. Prentice et al 1998a, Maesberg and Silverman 1996, Tian et al 1996, Beeho and Prentice 1997, Kaplan and Kaplan 1993, Hood 1983) using on-site surveys. Similarly, the present study is focused primarily on the perceived experiential outcomes of the museum exhibition and has given only minimal attention to shops and cafes and facilities such as ramps and toilets. This is not to suggest that other elements of the total museum experience be not implicitly measured in the current study. The museum's organisational structure, culture and staffing are likely to be measured indirectly through the different types of museum exhibition style and museum space given in the museum collages. For example, the *object based museum* described in Chapter 1 would be associated with object conservation and a focus on formal learning while the *idea based museum* would more likely be consumer and recreational in focus. In addition, qualitative findings (see appendix) suggested staff behaviour was perceived as distant and unfriendly in the object based museum style. However, due to the pictorial nature of the stimulus used in the quantitative interviews it was not possible to photograph staff members because of potential confusion with exhibits and other visitors. It is acknowledged, however, that in order to understand the total museum experience, as opposed to the experience of the exhibition alone, further research needs to identify the perceptions of the building, entrance and ticketing facilities and their impact on the experiential outcomes perceived and gained from the exhibition space.

positive experiential outcomes focused on hedonic imaginary experiences, interactivity and involvement with the museum exhibition, appreciative cognitions, and to a lesser extent learning. In contrast the object-based museum was found to have a more dysfunctional image and was seen as inaccessible and lacking in novel interpretative provision. Where pleasant and positive experiences were perceived, these were primarily learning orientated cognitions and only moderately felt.

5.1.1 Profile of Experiential Outcomes Perceived in the Idea-Based Museum

Looking at Table 5.1, those experiences considered by a significant proportion of respondents in the *idea-based* museum sub-sample to be extremely likely (for positive and pleasant experiences) included *'feeling entertained'* (48.5%), while extremely unlikely (for negative or undesirable experiences) experiences included *'finding the museum does not remind you of unpleasant school trips'* (58.5%), *'feeling uneasy or uncomfortable'* (56.5%), *'feeling you cannot talk openly* (52.5%), *'feeling the exhibits are not designed for ordinary visitors'* (52.5%) and *'finding the exhibits are not interesting'* (49.0%). The consensus towards the likelihood of these experiences provides support for the ability of the idea-based museum environment in generating an image associated with accessibility and comfort, and as primarily a recreational (entertainment) playground.

Experiential outcomes focused on affective or informal learning and social interaction were perceived by the majority of respondents as *quite likely.* As such, these experiential attributes represent second-order rewards perceived in the idea-based museum environment. Second-order experiential rewards included *'feeling the past is brought to life'* (54.5%), *'feel visits enrich children's lives'* (54.4%), *'creating images in your mind of how and who used the objects'* (51.0%), and *'having a good time with companions'* (50.5%). Further, a significant minority of respondents perceived *'feeling a sense of discovery and surprise'* (48.0%), *'find the exhibition made learning fun'* (45.5%) and *'feeling totally absorbed'* (43.5%) as *quite likely* in the idea-based museum. Together, these second-order experiential

Table 5.1: The Effect of Interpretative Style on Perceived Experiential Outcomes

Experiences by Museum Type	Extremely Unlikely	Quite Unlikely	Slightly Unlikely	Neither Likely or Unlikely	Slightly Likely	Quite Likely	Extremely Likely	Chi-sq (df) significance *Cramer's V*
Experiential Consumption and Imagineering								
Feel past is brought to life								56.29 (6)
Idea Museum %	1.5	1.0	1.0	3.0	13.5	54.5	25.5	.00000
Object Museum %	6.5	5.5	9.0	9.0	23.5	35.5	11.0	*.38*
Feel connection with the past								46.38 (6)
Idea Museum %	2.0	2.5	2.5	8.5	27.5	34.5	22.5	.00000
Object Museum %	4.0	8.5	10.5	15.5	31.5	24.5	5.5	.34
Create images in your mind of how & who used objects	.....	.....	(.5)	2.5	20.0	51.0	26.0	52.63 (4) .00000
Idea Museum %	.....	.....	(11.0)	6.5	35.5	38.5	8.5	*.36*
Object Museum %								
Think what your life like living in past								40.81
Idea Museum %	2.5	1.0	5.0	5.5	24.0	35.0	27.0	.00000
Object Museum %	4.0	9.5	10.0	11.0	28.5	27.5	9.5	*.31*
Feel stirred emotionally								43.65 (6)
Idea Museum %	4.0	6.0	6.0	14.0	35.5	24.0	10.5	00000
Object Museum %	8.5	17.0	16.0	12.5	32.5	11.5	2.0	*.33*
Feel totally absorbed								45.11 (6)
Idea Museum %	3.0	2.0	1.5	5.5	27.0	43.5	17.5	.00000
Object Museum %	4.5	10.0	9.0	9.5	34.0	25.5	7.5	*.33*
Admire craftsmanship & ingenuity								13.75 (5)
Idea Museum %	.....	(2.0)	2.5	4.5	15.5	45.5	30.0	.02
Object Museum %	.....	(7.0)	2.5	6.5	24.0	38.0	22.0	*.28*
See real objects								31.82 (5)
Idea Museum %	.....	(2.5)	1.0	4.0	12.5	42.5	37.5	.00001
Object Museum %	.....	(4.5)	3.0	6.0	26.0	45.0	15.5	.28
Learning Experiences and Beneficial Outcomes								
Stimulates interest in new things								38.06 (6)
Idea Museum %	3.0	2.0	3.5	6.5	32.5	39.0	13.5	.00000
Object Museum %	2.5	10.0	9.0	15.0	32.5	27.5	3.5	*.31*
Learn interesting things								33.47 (5)
Idea Museum %	.....	(1.0)	.5	1.5	19.0	47.5	30.5	.00000
Object Museum %	.....	(2.5)	4.5	5.0	26.0	51.5	10.4	*.29*
Find exhibition makes learn fun								57.11 (6)
Idea Museum %	1.5	2.0	2.5	6.5	16.0	45.5	26.0	.00000
Object Museum %	7.5	8.0	10.5	12.5	23.5	30.0	8.0	*.38*
Find out things can talk about later								24.76 (6)
Idea Museum %	1.5	1.0	3.5	7.5	23.0	45.5	18.0	.0004
Object Museum %	2.5	5.0	7.5	8.0	34.5	35.5	7.5	*.25*
Feel more appreciative of life lead today								23.03 (6)
Idea Museum %	1.0	2.0	4.5	11.0	25.5	29.5	26.5	.0008
Object Museum %	4.5	7.0	8.0	18.0	20.5	27.0	15.0	*.24*
Feel entertained								55.65 (6)
Idea Museum %	.5	3.0	2.5	5.0	18.0	18.0	48.5	.00000
Object Museum %	7.5	5.5	8.0	11.0	11.0	27.5	36.0	*.37*
Have a good time with companions								39.97 (6)
Idea Museum %	1.0	1.5	2.5	2.5	21.5	50.5	20.5	.00000
Object Museum %	4.5	4.0	8.0	12.5	26.0	35.5	9.5	*.32*
Feel satisfied you have done something worthwhile with your time								18.27 (6)
Idea Museum %	1.5	2.0	1.5	3.5	19.0	49.0	23.5	.006
Object Museum %	3.0	3.0	4.5	9.5	25.5	40.5	14.0	*.21*
Come out feeling refreshed								36.21 (6)
Idea Museum %	4.0	3.5	3.0	10.5	30.0	34.5	14.5	.00000
Object Museum %	5.5	8.0	12.0	21.5	26.5	18.5	8.0	.30
Think about the priorities in life								27.44
Idea Museum %	7.0	7.0	7.0	18.5	32.0	18.5	10.0	.0001
Object Museum %	16.0	13.5	10.0	23.5	21.0	13.0	3.0	*.26*
Feel visits enrich your life								25.89
Idea Museum %	2.5	2.5	4.5	10.0	35.0	30.0	15.5	.0002
Object Museum %	4.5	8.5	5.5	19.0	37.0	19.0	6.5	*.25*
Feel visits enrich life of children								30.60 (3)
Idea Museum %	.....	.....	.....	(1.8)	8.8	54.4	35.1	.00000
Object Museum %	.....	.....	.....	(13.6)	21.0	42.6	22.8	*.30*

Idea Museum n = 200 Object Museum n = 200

Note: brackets indicate where values have been re-coded to ensure a valid chi-sq test
where no significant differences were found, percentages for the entire sample N=400 are given

Table 5.1: continued.....

Experiences by Museum Type	Extremely Unlikely	Quite Unlikely	Slightly Unlikely	Neither Likely or Unlikely	Slightly Likely	Quite Likely	Extremely Likely	Chi-sq (df) significance *Cramer's V*
Interpretative Provision								
Use models								84.71 (6)
Idea Museum %	3.5	4.0	3.0	1.5	18.0	35.0	35.0	.00000
Object Museum %	15.0	15.0	12.5	8.5	16.0	24.5	24.5	***.41***
Use computers								91.35
Idea Museum %	15.0	4.5	4.0	3.5	21.0	25.0	27.0	.00000
Object Museum %	32.5	17.0	9.0	14.0	10.5	12.5	4.5	***.43***
Touch real objects								126.31 (6)
Idea Museum %	2.5	1.5	2.0	1.0	14.5	35.5	43.0	.00000
Object Museum %	18.5	17.5	11.0	7.5	15.0	20.0	8.5	***..49***
Feel exhibits are not explained well								59.69 (6)
Idea Museum %	15.5	35.0	11.5	27.5	27.5	5.5	1.0	.00000
Object Museum %	6.0	24.0	14.0	14.0	14.0	20.0	5.0	**.36**
Find it difficult to relate to these objects because not in context								40.42 (5)
Idea Museum %	33.0	35.5	12.5	8.0	7.5	(3.5)	.....	.000
Object Museum %	13.0	28.0	15.0	16.0	16.0	(12.0)	.....	.32
Feel there is too much information								36.45 (6)
Idea Museum %	43.0	22.5	14.5	11.0	4.4	2.0	1.5	.00000
Object Museum %	22.5	23.0	13.0	11.5	16.0	10.5	3.5	.30
Feel there is too much reading								56.15 (6)
Idea Museum %	44.5	25.5	10.5	9.5	6.5	2.5	1.0	.00000
Object Museum %	17.0	22.5	14.0	12.0	14.0	15.5	5.0	**.38**
Feel not designed for ordinary visitors								64.97 (5)
Idea Museum %	52.5	25.5	10.0	7.0	4.0	(1.0)	.....	.000
Object Museum %	24.0	20.0	11.0	16.5	14.0	(14.5)	.....	**.40**
Find it tedious because too much to see								43.84 (6)
Idea Museum %	42.5	26.0	11.0	11.5	5.0	3.5	.5	.00000
Object Museum %	20.0	22.5	13.0	12.0	17.5	12.0	3.0	.33
Novelty, Surprise, Boredom & Irrelevance								
Sense of discovery & surprise								19.79 (6)
Idea Museum %	2.5	3.0	2.5	1.5	22.0	48.0	20.5	.003
Object Museum %	4.0	5.0	4.5	3.0	34.5	40.0	9.0	***.22***
Feel exhibits are not interesting								54.69 (6)
Idea Museum %	47.0	27.5	12.0	4.5	5.0	3.5	.5	.000
Object Museum %	20.0	20.5	18.5	14.0	16.0	8.5	2.4	**.37**
Feel seen it all before								49.93 (6)
Idea Museum %	27.0	31.0	12.5	7.5	15.5	6.0	.5	.000
Object Museum %	13.0	16.5	17.0	6.5	18.0	22.5	6.5	.35
Feel bored quickly								46.54 (5)
Idea Museum %	40.0	27.0	14.0	7.5	8.5	1.0	2.0	.00000
Object Museum %	19.0	20.5	16.0	9.0	20.0	12.5	3.0	.34
Feel exhibits have no relevance to your life								25.86 (6)
Idea Museum %	22.0	39.0	17.5	10.5	7.0	3.0	1.0	.000
Object Museum %	10.5	27.5	21.0	16.5	16.5	5.5	2.5	.25
Do not see the significance of exhibiting these objects	41.0	38.0	8.5	6.0	4.0	(2.5)	.....	15.04 (5) .01
Idea Museum %	32.0	34.0	18.5	10.0	1.5	(4.0)	.....	.19
Object Museum %								
Feel more for children, not so interesting for respondent	27.6	23.0	8.4	9.7	12.8	13.8	4.6	**NS**
Both Museums %								
Psychological and Physical Comfort								
Feel uneasy or uncomfortable								20.19 (5)
Idea Museum %	56.5	22.0	10.0	8.5	2.5	(.5)	.....	.001
Object Museum %	39.0	25.5	9.5	19.5	3.0	(3.5)	.....	.23
Worry there is not sufficient facilities such as lifts, ramps, toilets & cafes	37.0	18.5	12.0	14.5	3.5	10.5	4.0	33.43 (6) .00001
Idea Museum %	21.0	11.0	10.5	35.0	8.0	10.0	4.5	.29
Object Museum %								
Feel cannot talk openly								30.70 (6)
Idea Museum %	55.5	22.5	10.0	7.5	2.0	2.0	.5	.00003
Object Museum %	33.0	24.0	12.0	15.5	10.0	5.0	.5	.28
Reminds of unpleasant school trip								38.51 (6)
Idea Museum %	58.5	13.0	8.0	15.0	4.0	1.0	.5	.00000
Object Museum %	33.0	13.0	5.5	34.0	8.5	4.0	2.0	.31
Feel unsure of how to look at the objects	39.0	26.8	12.3	11.0	7.8	(3.3)	.....	**NS**
Idea Museum %								
Object Museum %								

Idea Museum n = 200 Object Museum n = 200

Note: brackets indicate where values have been re-coded to ensure a valid chi-sq test
where no significant differences were found, percentages for the entire sample N=400 are given

show that hedonic consumption for the idea-based museum was centred on the creation of images of past lives, flow and aesthetic appreciation (Holbrook and Zirlin 1985, Hirschman 1985, Hirschman and Holbrook 1982). These findings suggest that the majority of visitors expected to be 'mindful' (Moscardo 1996) during their visit; that is, they expected to be sensitive to the content and to draw novel distinctions from what they see. However, the mindfulness found in the idea-based museum was emotionally charged, rather than cognitive and based on analytical thought as suggested by Moscardo (1996). This emotionally-charged mindfulness reflects the cognitive processes associated with hedonic consumption (Hirschman 1985), or *'literal representation'* (Duhaime et al 1995), and seemingly will provide greater satisfaction for individuals employing utopian, or *diversionary* reception strategies (Umiker-Sebeok 1993), and *experiential* consumers types (Hirschman 1983).

Of particular interest is the finding that 92.5% of respondents expected to see real objects in the idea based museum environment. This findings stands in contrast to current interpretative practice in idea-based museums, where the focus is on telling a story, there is less concern given to the exhibition of the 'real thing', and where replicas and other props are often used (Harrison 1993, Honan 1990, e.g. the crown jewels exhibition at Edinburgh Castle). Research focused on consumer perceptions of ideal exhibits (Alt and Shaw 1984), positive museum experiences (PME) (Serrell 1993), and 'immersion' (Bitgood 1990) have noted the importance of perceived authenticity. Pocock (1992), for example, has stressed that it is the perception of authenticity rather than the physical reality of authenticity that is important. As such, it can be seen that heritage sites can be perceived or imagined by consumers as physically authentic when often they are not[3]. The present findings show that the idea-based museum, centred on new Museology and a reliance on non-authentic physical props, is likely to be creating 'hyper-reality' (Eco 1986, Pocock 1992), 'staged authenticity' (MacCannell 1972, 1989), 'contrived/staged experiences' (Cohen 1979,

[3] However, it could be argued that authenticity does not have to be physical grounded and may be non-physical concept, for example, authenticity may be related to the thoughts and lives of people in the past.

McCannell 1976) and 'pseudo-events' (Boorstin 1964), as consumers pursue the physically authentic in search of connections with their past and the past of others (Merriman 1991, Lowenthal 1987). Controversy in museum development persists over this *'disneyfication'* of the authentic object collection (Cannon-Brookes 1991, Capstick 1985, Lowenthal 1985). The present study clearly suggests that perceptions of authenticity are linked to these immersive or 'disneyfied' environments.

Learning experiences of a more formal or traditional nature have been the main focus of other heritage and museum research to date (Prentice et al 1998, Moscardo 1996, Prentice and Light 1995, Prentice 1993a). Formal learning outcomes were perceived as likely in the idea-based museum. However, these were far less prominent in respondents' image of the idea-based museum than would be suggested by the formal learning focus of heritage research and museum curators to date (McLean 1995). A significant minority of respondents thought it was quite likely that they would *'learn interesting things'* (47.5%), *'see how things have changed and progressed'* (45.5%), and *'feel admiration for the craftsmanship and ingenuity'* (45.5%). These analytical learning based experiential outcomes demonstrate cognitive mindfulness (Moscardo 1996), are potentially more instrumental in tone, and based on cause and effect reasoning (Hirschman 1984). Other seemingly instrumental experiential outcomes perceived as quite likely, and which possibly extend beyond the spatial and time confines of the visit, representing 'benefits' or improved conditions as identified in leisure research (e.g. Driver 1991), included *'feeling you've done something worthwhile with your time'* (49.0%) and *'finding things you can talk about later'* (45.5%).

5.1.2 Profile of Experiential Outcomes Perceived in the Object-Based Museum

In contrast to the idea-based museum, Table 5.1 shows the object-based museum was characterised by a lack of novelty, museum fatigue and boredom. For example, experiences rated to any degree as 'likely' included *'feeling you've seen it all before'*

(46.5%); *'feeling the exhibits have no relevance to your life '* (39.0%); *'feeling bored quickly'* (35.5%) *'finding it tedious because there is too much to see'* (32.5%); *'feeling there is too much reading to do'* (34.5%); *'feel it is not designed for ordinary visitors'* (28.5%); and *'finding it difficult to relate to because not in context'* (28.0%). Elsewhere, physical and psychological discomfort, or negative experiences from, for example, poor provision of museum amenities, or 'feeling unsure how to work the system' (Hood 1993), have been found to impact on individuals adversely and cause stress, fatigue and even museum avoidance (Olds 1994, Hood 1993). Removing these unpleasant and negative experiences from the image of object-based museums held by respondents has the potential to result in disproportional gains in terms of market development and visit satisfaction.

Psychological discomfort in museums have been linked to three causes: Firstly, psychological discomfort has been associated with a lack of museum socialisation, which renders the individual unable to unravel the museum code of objects, language and symbols and leads to feelings of lack of competence (Olds et al 1994, Hood 1993). Secondly, psychological discomfort has been found to accompany situations where there is an inability to interact and touch exhibits, concerns about facilities, and a general lack of freedom in physical movement and social interaction (Olds a1994, Hood 1993). Lastly, psychological discomfort has been associated with reported lack of interest, or tiredness, leading to museum mindlessness (Moscardo 1996).

As shown in Table 5.1, positive or appreciative experiential outcomes which were perceived to any degree as likely in the object-based were found to be primarily learning based. For example, 60.4% of respondents thought it was extremely or quite that they would *'learn interesting things'* (10.4% and 51.5% respectively); 63.0% of respondents thought is was extremely or quite likely that they would *'see how things have changed and progressed'* (17.5% and 45.5% respectively); and 63.0% thought it was extremely or quite likely that they would *'see real objects'* (15.5% and 45.0% respectively). Furthermore, and as would be expected from object-based exhibitions which are not generally high-tech and

interactive, 32.5% of respondents thought it was extremely unlikely that they would use a computer, while 26.0% thought this was quite or slightly unlikely. However, beyond learning-based outcomes, respondents' perceptions of the object-based museum were fairly negative. For example, 26.0% of respondents stated that in the object-based museum it was unlikely that they would *'find learning fun'*, and 21.5% who did not think that the object-based museum would *'stimulate their interest in new areas'*.

Interestingly, in contrast to the general apathy expressed by respondents in terms of perceived positive experiences, and the prevalence of negative experiences in the object-based museum, 36.0% of respondents stated that it was extremely likely that they would *'feel entertained'*. These findings appear inconsistent, and perhaps suggest that entertainment is a passive or mindless activity not strongly associated with high levels of satisfaction of stimulation. Indeed, studies have noted *'somewhere to go for a day out'* (McIntosh 1997, Hendy 1984, Griggs and Hays-Jackson 1983, Alt 1980) as a popular motive reported for museum visits.

In summary, simple frequency profiling has shown a marked contrast in the images held of the idea and object-based museums by the sample respondents. In particular, a greater range of commonly held positive experiences were perceived in the idea-based museum and were concentrated on hedonic consumption and psychological comfort. In contrast, the object-based museum was perceived as a more dysfunctional environment with formal learning experiences only moderately reported. These differences between the two museum styles are seemingly attributable to the different museum environments presented to respondents in the pictorial collages. The next section (5.2) will examine in more detail the importance of the physical environment in mediating the experiences opportunities perceived by respondents in museum setting, and will explore whether the above differences in image profiles for the two museums can be supported statistically.

Evidence from diverse literatures including museum studies, leisure, tourism and retailing, suggest the physical setting impacts the range and type of consumption experiences perceived and consumed. For example, in leisure and tourism *The Interactive Experience Model* (Falk and Dierking 1992) defines the museum consumption experience as three interacting elements of *personal* (e.g. expectations, interests, motives and past experience), *social* (e.g. companions, crowds and other museum visitors) and the *physical* (e.g. buildings, artefacts. ambience and potential activities); while *The Manning-Haas et al Hierarchy of Demand,* applied primarily to outdoor recreation planning, has shown the physical setting (level 2) to mediate the range and type of experience possibilities available to the consumer, and the longer-term benefits that may flow from these experiences (Manning 1986, Haas et al 1980, Ewert and Hollenhorst 1994, Driver et al 1991, Burns et al 1994 and see chapter 1). More recently the notion of 'place' as integral to the heritage experienced by consumers has lead to the identification of the *'environmental encounter'*. This results from a strong emotional reaction to a service encounter and creates a long-term attachment to place (Clarke and Schmidt 1995). Other authors have similarly described *'place appreciation'* (Stewart et al 1998) and *'endearment'* (Prentice 1997b, Prentice et al 1994) in the context of landscape heritage, drawing on the place attachment theory found in geography more generally (Relph 1976, Tuan 1974).

In marketing applications more generally, environmental-psychology models applied to service environments have drawn attention to how different elements of designed retail space or *'service-scape'* (Bitner 1992) results in a variety of approach and avoidance behaviours, which are mediated by emotional (Donovan and Rossiter 1982, Bitner 1992, Clarke and Schmidt 1995, McGoldrick and Pieros 1998) as well as cognitive and physiological changes in the consumer (Bitner 1992, McGoldrick and Pieros 1998). Furthermore, and pertinent for market development and customer retention, recent evidence

has suggested that tourists attribute negative and positive experiences gained at destination attractions to external and non-personal sources, (e.g. managerial initiatives and environmental factors such as crowds). Such attribution leaves themselves as consumers passive in determining their satisfaction (Jackson et al 1996), and the onus of blame or praise on the attraction itself. Together these diverse literatures highlight the role of the physical environment in facilitating on- site museum experiences. Furthermore, one of the central arguments of New Museology is that the physical environment design focused on hi-tech and other participatory devices, is central to getting the message across and democratising museums as public resources (Harrison 1993, Honan 1990).

Calls for interpretation to provide context in the management of 'implosion'[4] (Prentice 1996); to strategically employ the museum environment to 'send museum visitors home alive!'[5] (Olds 1994); and to match material cultures so as to aid the decoding of meaning in museums (McCraken 1990) have not, however, lead to a substantial stream of research dedicated to understanding the impact of the museum interpretative environment on the visitor experience. As noted in Chapter 1, to date museum evaluation research has characterised by a concentration on factual learning experiences gained on site, the evaluation of interpretative styles by 'testing visitors knowledge' on pen and paper survey techniques (for example, Prentice et al 1998b, Prentice 1995 & 1993a, Ryan and Dewar 1995, Light 1995b, Dewar 1992, Screven 1974), and a focus on visitors' reactions and evaluation of individual exhibits (Prentice and Cunnell 1997, Light 1995). Indeed, it is only recently that attention has begun to be focused on the affective meanings derived from particular exhibits (Prentice 1997a, McIntosh 1997).

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[4] As noted in Chapter 1, *'implosion'* refers to the bringing together of competing texts which are anticipated, selected (either purposefully or randomly), viewed (or ignored), assimilated (or dissimilated), are remembered (or forgotten) (Prentice 1996). The management of implosion is concerned with the provision of context in order to facilitate imaginative contexts.

[5] 'Aliveness' is a term coined by Olds (1994) to describe the impact of environmental ambiance which when accommodating visitors' needs of movement, comfort, perceptions of competence and control, keeps the brain at optimal simulation and leads to individual creativity and learning, where people have reported feeling akin to self-actualisation and personal reflection

Beyond the substantial criticism of the narrow focus of much interpretative evaluation (McManus 1991), the present section addresses two additional concerns. Firstly, while limited attention has begun to focus on the impact of the physical environment on experiences reported by visitors during or following museum visits (Prentice et al 1998, Prentice and Cunnell 1998), no attention has been given to the relationship between the *anticipated* physical environment and the images held by individuals of museum experience outcomes. The following analysis seeks to provide some exploratory insight into this empirical neglect by examining the role of the anticipated museum physical environment on the experiences imagined by sample respondents. Any differences in respondents expected experiences attributable to the contrasting museum styles or interpretative settings, noted in the present study, will offer some support for propositions outlined in Chapter 1 that interpretative style (the physical evidence in the museum) provides symbolic cues to actual and latent visitors; that the physical interpretative environment may be a branding basis of museum attractions for consumers; and that museum interpretation may be becoming the object of consumption rather than the objects presented.

The second concern addressed in the present section is methodological. Resulting from a focus on learning outcomes and a concentration on single exhibits, museum evaluation research has failed to address the intangible, experiential and emotionally charged expectations associated with holistic organic images[6] and impressions held by respondents (Echtner and Ritchie 1993). In addition, other studies have found visitors to attend to the informational content of museum exhibits differently (Stewart et al 1998, Prentice et al 1998b, Prentice and Cunnell 1997, Light 1995) and as such an aggregated assessment[7] of the museum environment may be more useful for understanding individuals' attitudinal disposition and satisfaction with museum visits. The present study adopted a holistic rather than exhibit perspective and used museum pictorial collages to examine the imagined range

[6] Organic images are seen as the awareness and knowledge held by individuals before they are exposed to destination promotions (Faykeye and Crompton 1991).

[7] Aggregated in terms of the collection of exhibits and museum space taken together, in contrast to previous studies where the research has concentrated on the evaluation of specific exhibits.

and intensity of general learning, cognition seeking or thoughtful, imaginative and emotional experiences perceived by the sample of respondents.

Based on Chi-square contingency analysis of the likelihood of the experiential outcomes reported, Table 5.1 shows that respondents perceived the two museum styles as offering extremely divergent patterns of experience outcomes. The equivalence of the two museum sub-samples in terms of socio-demographics, general socialisation, museum past experience and museum related lifestyle pastimes, goes some way to establish the validity of attributing these significant differences in the intensity of anticipated experiences reported in the two museum sub-samples to the museum's physical environments.

Table 5.1 shows that only for *'feeling unsure of how to look at objects'* and *'feeling the exhibition is more for children'* were the museum styles comparable with no significant differences being observed in the Chi-square analysis. This highlights the child orientated role associated with museums generally (Beeho and Prentice 1997, Alt 1980), the desire to pass on our knowledge to our children and to socialise them into cultural activities in preparation for later life (Bourdieu 1974). However, and more pertinent for an understanding of the role of anticipated physical environment on expected experiences, the lack of difference between the museums for *'feeling unsure of how to look at the objects'* implies that the museums are equal in their ability to transcend intrapersonal problems associated with the museum code (Hood 1983, 1993) for the middle-classes, and the competence or the confidence required to descipher museum objects (Olds 1994), despite the New Museology often seen to be more adept at this through the use of themeing and sequencing to remove these insecurities. This finding is unlikely to hold, however, when a broader social class basis is considered. Subsequent analysis in this chapter, however, will show that museum incompetence is present within the middle-classes, but is limited to sub-groups of this population, and that the idea-based museum, or the New Museology, is unable to mediate these individual group differences.

For all other perceived experiential outcomes, Table 5.1 shows the idea-based museum to outperform the object-based museum, based on significant Chi-square and Cramer's V values. For all positively phrased experiential outcomes, respondents rated these experiences as more likely in the idea-based museum, whereas for all negatively phrased experiences the reversed was found.

5.2.1 Interpretative Provision

Table 5.1 shows the largest differences in perceptions of the two museums were related to the interpretative environment, and in particular, the ability of visitors to engage with the objects displayed and to interact with interpretive media. *'Being able to touch objects'* ($p<.000$, Cramer's V = .49), *'using computers'* ($p<.000$, Cramer's V = .43) and *'using models'* ($p<.000$, Cramer's V = .41) were all more strongly observed in the idea-based museum. For example, 43.0% of respondents rated *'being able to touch objects'* as extremely likely in the idea-based museum compared to only 8.5% of respondents who found this to be the case for the object-based museum. Similarly, 27.0% of those exposed to the idea-based museum rated *'using computers'* as extremely likely, while only 4.5% of those exposed to the object-based museum stimulus thought using computers was extremely likely and 32.5% of respondents perceived using computers to be extremely unlikely.

The importance of interacting with the interpretative provision at museums has been linked to 'mindfulness' (Moscardo 1996) and 'aliveness' (Olds 1994), the latter of which has been strongly associated with customer satisfaction and learning. Beer (1987), for example, noted that text alone, which is often prevalent in object-based museums, did hold visitor's attention. However, Beer warned against *"an ever-increasing array of gadgets to amaze the visitor"* (cf. Birch 1982, p26), stressing that it is the *variety* not *quantity* of manipuables in conjunction with other styles of exhibits that holds visitors attention, a finding supported recently by both Moscardo (1996) and (Prentice et al 1998b). The importance of interactive media opportunities to the museum experience is also stressed in the relatively

long tradition of research concentrating on the effectiveness of hands-on exhibits (Goddard 1994, Busque 1991, Their and Linn 1976, Screven 1974) and other studies where the effects of interactive opportunities on social interaction in the museum setting (Blud 1990 a&b, Stevenson and Bryden 1991) have been noted.

The growth of interactive presentation media in museum corresponding to the growth in the New Museology, although still infantile, suggests a new visitor 'literacy' in museums will evolve in response to the loss of linearity in time, space and story achieved through direct audience participation and control (Nash 1992). This questions the utility of the exhibit evaluation frameworks and methods used to date (Stewart et al 1998, Prentice et al 1998a&b, Moscardo 1996, Miles and Trout 1991, Griggs 1990, Alt and Shaw 1984) and more recent applications of communication competency theory (Ryan and Dewar 1995), which has measured visitor responses to interactive exhibits at one moment in time rather than tracing the dynamic of the interaction and its meaning to the individual. Literacy studies from elsewhere (e.g. Elliott and Wattanasuwan 1998, Ritson and Elliott 1995, O'Donohoe 1994, Scott 1994&1993), studies focused on consumer's reading of multi-media (e.g. Tavassoli 1998), and developing methods that do not rely on verbal communication by respondents (Zaltsman 1996), offer new methodological approaches and conceptual frameworks and the potential to increase our understanding of museum literacy and better understand consumer's responses to changes in interpretative styles.

Museum and heritage studies have found visitors are often conscious of and critical of the interpretation they find (Prentice 1997, Maesberg and Silverman 1996, McManus 1993a, Alt and Shaw 1984, Griggs 1984, Alt 1983). Table 5.1 shows that, although weaker than the differences observed for interactivity, respondents found the idea and object based museums to be contingent on the interpretative setting for dysfunctional museum expectations of *'feeling the exhibits are designed for ordinary visitors'* ($p<.000$, Cramer's $V = .40$), *'finding there is too much reading to do'* ($p<.000$, Cramer's $V = .38$), *'feeling the exhibits are not explained well'* ($p<.000$, Cramer's $V=.36$), *'finding objects difficult to*

relate to because not in context' (p<.000, Cramer's V=.32) *'finding it tedious because there is too much to see'* (p<.0000, Cramer's V =.33) and *'finding there is too much information'* (p<.000, Cramer's V =. 30).

The New Museology centres on the idea of the *'egalitarian museum'* (Harrison 1993, Stam 1993, Vergo 1989), seeks to represent community diversity and its relevance as a public institution in terms of both the exhibit contents and customer base. In the present study, 28.5% of object-based museum respondents felt it was likely that *'the exhibits had not been designed for ordinary visitors'*, compared to only 5.0% of those shown the idea-based museum. Further, more idea-based museum respondents rated *'feeling the exhibits are designed for ordinary visitors'* as extremely or quite unlikely (52.5% and 25.5%) compared to respondents in the object-based museum sub-sample (24.0% and 20.0%, p<.000, Cramer's V = .40). There appears to be an increased sense of belonging or ownership of the museum exhibition by middle-class individuals for the idea-based museum sub-sample compared to the object-based museum sample, demonstrating the success of the New Museology, as represented by the idea-based museum, in one of its principal aims. Future research needs to establish whether similar findings occur for other social class groups.

Elsewhere undesirable exhibit characteristics have centred around dysfunctional communication and perceived irrelevance and have included visitors comments on exhibits not being explained, being unrealistic or difficult to relate to, appealing to children but not adults, being old fashioned and containing too much information (Miles and Trout 1991, Griggs 1990). The present study confirms these earlier findings and demonstrates the ability of the idea-based museum to redress undesirable characteristics found in the object-based museum. For example, 34.5% of object-based museum respondents thought it was likely that they would *'find there is too much reading to do'*, compared to only 10.0% of idea-based museum respondents (p<.000, Cramer's V = .38). This pattern was repeated for *'feeling the exhibits are not explained well'*, with 25.5% of object-based museum respondents rating this experiences as extremely or quite likely compared to only 6.5% of

idea-based respondents (p<.000, Cramer's V=.36). It seems that museum professionals are overestimating the skill and effort actual and potential visitors to the object-based museum are prepared to employ in terms of reading and managing large amounts of information. More pertinently, it has been acknowledged that for individuals to be mindful or to experience flow, effort on the part of the individual is required but must be balanced in terms of skill and challenge (Moscardo 1996, Csikszentmihalyi and Csikszentmihalyi 1988). Clearly the recreational or generalist motives that characterise contemporary museum visits (e.g. Prentice 1993b, Falk and Dierking 1992, Urry 1989, Prentice 1989, Thomas 1989, Alt 1980) and the effort required to be fully engaged with the information and be rendered mindful or experience flow, appear to present a conflict for museum managers, particularly in the object-based museum.

Remedies to the problems associated with reducing the level of effort and skill required in museum exhibitions have been suggested and have included staging information at different levels of depth and the use of different typographic styles in order to facilitate visitors in choosing the amount of information and skill they are prepared to bring to a museum visit (e.g. Olds 1994). Others have suggested contextual dioramas to bridge the gap between the familiar and the unknown thereby alleviating the pressure and visitor reliance on visual text (e.g. Olds 1994, Vergo 1989), while McCraken (1990) has suggested the matching of material cultures to provide an easily accessible interpretative framework on which visitors can draw. These techniques are more commonly associated with the idea-based museum and the present findings offer strong support for their inclusion.

5.2.2 Psychological and Physical Comfort

The importance of putting visitors at their ease and reducing psychological or physical stress has been emphasised by Hood (1993) and Olds (1994) as a pre-requisite that must be achieved if visitors are to attend to exhibitions in a mindful way. The idea-based museum was found to be significantly more accomplished in providing a comfortable psychological

space in terms of countering *'worrying that there is insufficient facilities such as lifts, ramps, toilets and cafes'* (p<.000, Cramer's V = .29), *'feeling you cannot talk openly'* (p<.000, Cramer's V = .28) and *'feeling uneasy and uncomfortable'* (p= .001, Cramer's V = .23), compared to the object-based museum. As such, the idea-based museum is more likely to render visitors mindful (Moscardo 1996) and send them home alive (Olds 1994).

5.2.3 Experiential Consumption and Museum Imagineering

'Imagineering' or the professional dreaming-up of three dimensional fantasies which are planned and reconstructed for the total experience has become common place in our developing urban landscape (for example, Covent Gardens (Lumley 1994, York 1984) and a characteristic of postmodern society as hyperreality (Eco 1986, Postman 1985, Firat 1997, van Raaij 1993). In terms of perceived positive reactions to the museum exhibitions, the idea and object based museums were found to significantly diverge in terms of hedonic cognitions and wakeful daydreaming, or what has been termed elsewhere as personal and non-personal imagery (Hirschman and Holbrook 1982). In particular, strong differences were noted for *'feeling the past is brought to life'* (p<.000, Cramer's V =. 38) and *'creating images in your mind of how and who used the objects'* (p<.000, Cramer's V = .36). For instance, 80.0% of idea-based museum respondents said it was extremely or quite likely that the *'past would be brought to life'* (p<.000, Cramer's V =. 38), compared to only 46.5% of object-based museum respondents. Similarly, more respondents in the idea-based museum thought it was extremely or quite likely (77.0%) that would *'creates images in their minds of how and who used the objects'*, compared to 46.0% respondents in the object-based museum sample (p<.000, Cramer's V = .36). Differences in Imagineering facilitated by the two museum environments where found, however, to extend beyond three-dimensional dreaming up of historical characters to include the personalised imagery (Hirschman and Holbrook 1982) of *'thinking of what your life would have been like living in the past'* (p<.000, Cramer's V = .31) and strong affective overtones including *'feeling a connection with the past'*, (p<.000, Cramer's V = .34), *'feeling totally absorbed'* (p<.000, Cramer's V

=.33), *'feeling stirred emotionally'* (p<.000, Cramer's V = .33). These findings confirm that the idea-based museum is far more effective at facilitating respondents' imaginations. 'Imagineering', has been shown as a positive and enabling change agent (Lumley 1994, 1988) rather than an inability to come to terms with the past with its associated experiences of nostalgia and escapism (Hewison 1987, Lowenthal 1985).

5.2.4 Learning Experiences & Beneficial Outcomes

Elsewhere, museum visitors have been described as *'window-shopping'* (Shouten 1995, Graf 1994) for the intelligent acquisition of new knowledge and in the present study the idea-based museum is confirmed as significantly more likely to provide such shopping opportunities. Although not as strong as those differences observed for hedonic consumption, the idea-based museum was found to be significantly better at providing learning-based and other instrumental outcomes. Expectations of instrumental learning including *'stimulates your interest in new things'*, (p<.000, Cramer's V = .31), *'learn interest things'* (p<.000, Cramer's V = .29), *'feel more appreciative of life we lead today'* (p<.000, Cramer's V = .24), *'see how things have changed and progressed'* (p=.001, Cramer's V = .22) and *'feel a sense of discovery and surprise'* (p=.003, Cramer's V = .22) were more apparent in the idea-based museum than the object-based museum, as were other beneficial outcomes including *'enriching children's'* lives' (p<.000, Cramer's V =.30), *'feeling refreshed'* (p<.000, Cramer's V = .30), *'enriching your own life'* (p<.000, Cramer's V = .25), *'finding out things you can talk about later'* (p<.000, Cramer's V = . 25) and *'feeling satisfied you've done something worthwhile with your time'* (p<.006, Cramer's V = .21).

5.2.5 Novelty, Surprise and Boredom

The lure of the novel and exotic are well recognised motivators in a tourism (e.g Mannell and Iso-Ahola 1987, Cohen 1979) and more recently in recreational shopping (e.g. Falk and

Campbell 1997, Langreher 1991) contexts, while the promise of 'mystery', in terms of additional information, has been identified as a crucial element of preference in landscape aesthetics (Ulrich 1977) and similar to the ideas of novelty and complexity established by Berlyne (1971, 1963) in the study of aesthetic response. In museum studies visitors have been described as curious and seeking out the unusual (Alt and Griggs 1984) and to enjoy being surprised by what they view (Duhamie et al 1995). Shouten (1995), in fact, identified the *uncommon* and *novel* as key elements in his proposed measure of service quality for museum environments.

In the present study, more respondents in the object-based museum expected to *'feel they had seen it all before'* ($p<.000$, Cramer's V = .35), *'feel bored quickly'* ($p<.000$, Cramer's V = .34) and to *'find the exhibits were not interesting'* ($p<.000$, Cramer's V = .37), compared to respondents exposed to the idea-based museum stimuli. In particular, 47.0% of respondents perceived that they *'had seen it all before'* in the object-based museum, while only 22.0% of respondents thought this would be the case in the idea-based museum ($p<.000$, Cramer's V = .35). Further, 27.0% of object-based museum respondents compared to only 9.0% of idea-based museum respondents expected <u>not</u> to find the exhibits interesting ($p<.000$, Cramer's V = .37), while 35.5% of object-based museum respondents compared to only 11.5% idea-based museum respondents perceived some likelihood of feeling bored quickly ($p<.000$, Cramer's V = .34). In addition, the present study the object-based museum was perceived as less able to evoke feelings of discovery and surprise, compared to the idea-based museum ($p=.003$, Cramer's V =.22). However, the importance of psychological and physical comfort to the museum experience, noted earlier, and the mechanisms for achieving optimal experience (Csikszentmihalyi and Csikszentmihalyi 1988), stress that novelty must not become threatening and that a balance between novelty and psychological comfort factors must be maintained. Clearly, from the findings of the present study, over-stimulation does not appear to be a managerial problem, particularly for the object-based museum environment. Immediate attention, is however, needed to raise

perceptions of novelty and complexity in object-based museum environments. Careful monitoring of the change in stimulation level will ensure that optimal levels are not exceeded.

Together, in comparing the idea and object-based museums, the findings of the present survey demonstrate that respondents do not see all museums as the same, but instead are able to make strong and significant distinctions between differing museum environments. These findings provide some support for the notions of interpretative style as a valid branding basis for museum and the possibility that the interpretation is a dominant aspect of the product offered (Hetzel 1995a). Finally, the above analysis confirms that the two museum styles studied are distinct and may indeed represent opposite end points on the Exhibition Content continuum, as suggested by Dean (1994). The idea-based museum was overwhelmingly superior to the object-based museum across a diverse range of expected experiential outcomes, and in particular for realising interactivity and positive imaginal expectations, and minimising dysfunctional setting expectations. The next section examines if distinct groups of expected experiential outcomes exist for both the idea and object based museums, and if so, whether these experiential groupings are the same for different museum styles.

5.3 Dimensionality of Expected Museum Experiences

European research concerned with experiential outcomes realised by visitors at heritage attractions has developed lists of heritage experiences (e.g. Prentice et al 1998 a&b, McIntosh 1997, Prentice 1993 a&b); and has identified distinct sub-groups of visitors based on the differing experiences realised (Prentice et al 1998 a&b, Prentice et al 1997, McIntosh 1997). To date, however, there has been little empirical attention given to the relationship among these experiences or the identification of latent dimensions that characterise heritage consumption. Most museum and heritage studies have not recognised the potential relationships between experience outcomes and have predominately provided item-by-item

analysis. Where studies have grouped experience outcomes, the grouping has tended to be on a priori basis, with no empirical evaluation of the groupings derived (e.g. Prentice et al 1998, McIntosh 1997, Prentice et al 1993a).

A limited number of exceptions, however, can be found in North American studies where empirical classifications of museum and heritage experiences have been attempted. Tian et al (1996) found five latent dimensions, (*socialisation/bonding*, *relaxation*, *social recognition*, *self-esteem* and *educational entertainment*), to be consistent over a range of museum type attractions, including an historical house, science museum and formal gardens. However, the measurement models for these latent dimensions were borrowed directly from out-door recreation experience domains and may as such neglect important experiential attributes particular to museum and heritage consumption. Other North American studies include Milan and Wourms (1991) who found two principal components in their evaluation of service performance at zoological museums to include '*positive experience*' and '*interaction*'; and Edwards et al (1990) who, concentrating on the information experiences of art museum visitors, identified four latent 'clusters' of visitors' information-based experiences to included *'how to look at the art'*, *'the availability of interpretative aids beyond simple labels'*, *'background information to place the art in context'*, and *'the specific characteristics or elements of the artworks to which visitors attended the most'*. Further evidence suggesting that museum experiential outcomes are likely to be multi-dimensional and to contain distinct sub-groups can be found in the reported dimensionality of closely related phenomena including the experience of tourism (e.g. Otto and Ritchie 1996), leisure (for reviews see Manfredo et al 1996, Driver et al 1991) and services more generally (Parasuraman et al 1985 & 1988); and the notion that hedonic and experiential consumption is defined by its multi-dimensional and multi-sensory nature (Hirschman and Holbrook 1982, Holbrook and Hirschman 1982).

To determine the museum experience opportunities measured in the present study could be grouped empirically, and to compare those latent dimensions developed in North American

studies, the forty-two expected museum experiences shown in Table 5.1 were examined using exploratory principal component and confirmatory factor analysis[8]. Further, in light of the earlier findings which revealed experiential outcomes to be strongly contingent on museum interpretative styles and studies elsewhere that have shown heritage attraction types to vary in the experiences they offer (Prentice et al 1997, Prentice 1993a), the implicit structure of museum experiences, as latent dimensions, was compared for the two contrasting museum styles employed in the present study, using confirmatory factor analysis.

5.3.1 Exploratory Principal Component Analyses

i) Appropriateness of the Data

The data set and correlation matrix of forty-two expected experience outcomes was examined. The ratio of 9.5 observations to each variable was above the minimum suggested ratio of 5:1 (Hair et al 1995) and the Bartlett's sphericity test of variable independence was rejected at $p<.0000$. An additional measure, the Kaiser-Meyer-Olkin measure of sampling adequacy was also taken. A Kaiser-Meyer-Olkin value of .953 was above the minimum criteria of .50, and based on the criteria offered by Kaiser and Rice (1974), the data was considered 'marvelous' for principal component analysis.

ii) Choosing the Number of Factor Components to Extract

The forty-two experience dimensions were subject to principal component analyses. From the initial factor matrix solution, two measures were used to determine the number of factor

[8] Chapter 2 details the different steps in performing both exploratory and confirmatory factor analysis, provides methodological notes on current best practice and outlines the aims of and researcher choice of criteria for developing and testing factor structures.

components to extract, the latent roots[9], or eigenvalues, and the scree plot[10]. Table 5.2 shows the criterion of an eigenvalue > 1 suggested eight principal components explaining 67.1% of the variance should be extracted.

Table 5.2: **Number of Factor Components Identified with Eigenvalues >1 in the Idea and Object-Based Museums**

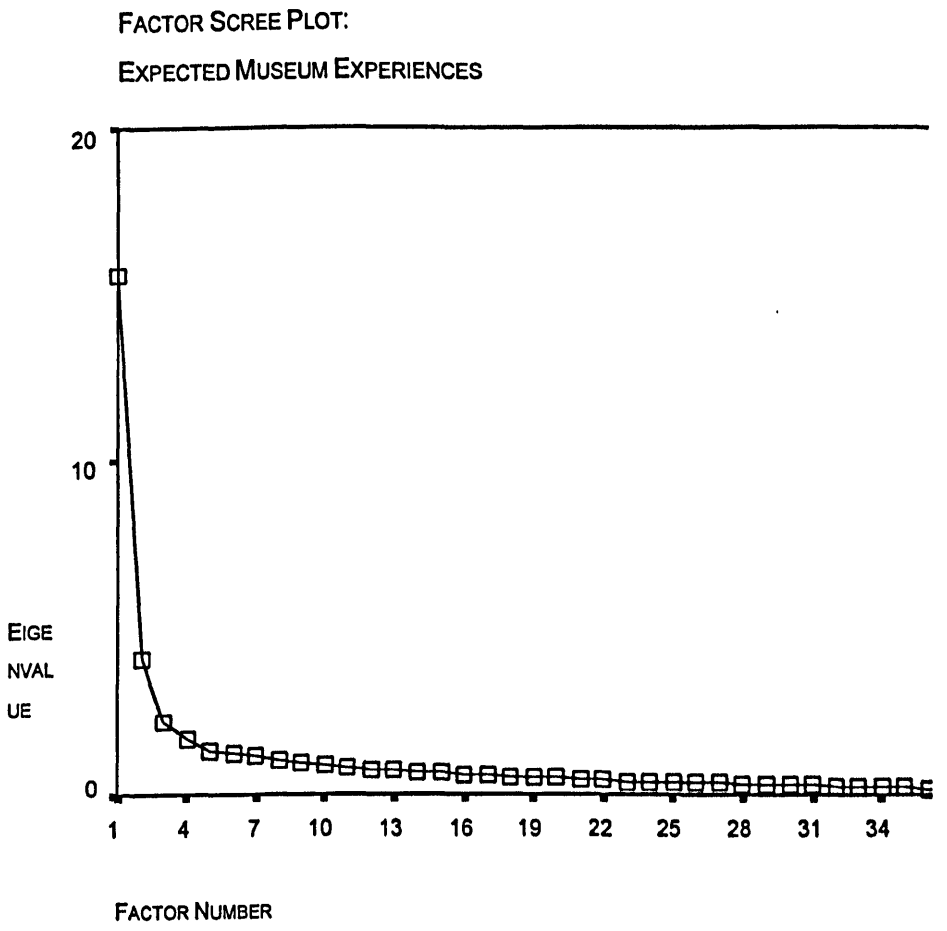
Dimension	Eigenvalue	% Variance Explained	Cumulative %
1	15.59	*37.1*	37.1
2	4.04	*9.6*	46.8
3	2.19	*5.2*	52.0
4	1.66	*4.0*	55.9
5	1.31	*3.1*	59.1
6	1.22	*2.9*	62.0
7	1.15	*2.7*	64.7
8	1.03	*2.4*	67.1

Figure 5.1 details the scree plot and shows the scree tail begins at five principal dimensions. As the eigenvalue >1 and scree plot criteria did not agree on the number of factors to be extracted both the eight and five component solutions, with Varimax rotation, were examined for general interpretability (Hair et al 1995). Hair et al (1995) suggested that in addition to the scree plot and eigenvalue of >1, component solution two above and below those suggested by the eigenvalue > 1 criterion should be examined. These additional factor component solutions were examined. As such, principal component analyses with Varimax rotations were examined for a five component, as well six to ten component solutions. Variables were assigned to latent dimensions on which they loaded significantly (i.e. .5 or above, Hair et al 1995).

[9] Factors with a latent root or eigenvalue > 1 explain more variance than a single observed variable. This criterion has been found to be highly reliable when there are between 20 and 50 variables and was clearly appropriate for the present analysis using 42 variables.

[10] The scree test plots the eigenvalues against the number of factors in order to identify where the amount of unique variance begins to dominate the common variance structure.

Figure 5.1:



The principal component solutions identified were not found to be equally interpretable. In particular, the eight component solution identified by the eigenvalues >1 was not interpretable in that it was not possible to identify distinct and meaningful components (Hair et al 1995). The five-factor solution identified using the scree plot was, however, interpretable; it was both meaningful in terms of museum literature, and distinct. Table 5.3 details the five anticipated museum experience components, and the observed variables on which they were found to load significantly.

Table 5.3: Principal Components (with Varimax Rotation) of Museum Anticipated Experiences

Dimensions	1	2	3	4	5
	Positive Intrinsic Expectations	*Reflective Instrumental Expectations*	*Dysfunctional Setting Expectations*	*Projective Absorption*	*Psychomotor-Mindful Interactivity Expectations*
Feel entertained	.725				
Find fun learning	.650				
Feel bored quickly	-.648				
Brings the past to life	.636				
Feel totally absorbed	.628				
See real objects	.626				
Have a good time with companions	.608				
Stimulates interest in new things	.601				
Exhibits are not interesting	-.579				
Feel refreshed	.565				
Learn interesting things	.526				
Feel more appreciative of life today		.746			
Think about the priorities in your life		.705			
Feel that you've done something worthwhile		.682			
Feel visits enrich your life		.648			
Find out things you can talk about later		.616			
Feel uneasy or uncomfortable			.721		
Feel you cannot talk openly			.705		
Feel unsure of how to look at the exhibits			.692		
Feel not design for ordinary visitors			.668		
Find it tedious because there is too much to see			.653		
Feel there is too much reading to do			.601		
Feel there is too much information			.586		
Imagine your life living in the past				.727	
Feel a connection with the past				.710	
Imagine who and how the objects were used				.553	
Feel admiration of craftsmanship & ingenuity				.525	
Use models					.860
Touch object					.777
Use computers					.748
Alpha	**.9395**	**.8604**	**.8445**	**.8281**	**.8601**

N=400

ii) Exploratory Principal Components of Expected Museum Experience

Dimension 1: Positive Intrinsic Expectations

Table 5.3 shows the primary expected experience dimension, that explaining the majority of the variance, as including general positive cognitive and emotional experiences expected both as a 'reaction' to (Holbrook et al 1990), and as intrinsic to the visit. Expectations of *'feeling entertained', 'finding learning fun', 'feeling bored quickly', 'feeling the past is*

brought to life', 'feeling totally absorbed', 'seeing real objects', 'having a good time with companions', 'finding the exhibit stimulates your interest in new things', 'finding the exhibits are not interesting', 'feeling refreshed' and 'learning interesting things', were found to load significantly on this dimensions. These 'reactions' are likely to be spatially confined to the museum visit and do not offer instrumental benefits as improved conditions, which extend beyond the temporal confines of the museum (Driver et al 1991). In fact the positive intrinsic experience dimension captures affective 'functional attributes'[11], as defined by Lefkoff-Hagius and Mason (1993).

Elsewhere museum studies have similarly identified the Positive Museum Experience (PME) (Serrell et al 1993) to include feelings of absorption, discovery, wonder, intellectual challenge and connection to personal experiences; while 'characteristics of an ideal exhibit' (Alt and Shaw 1984), have been found to include bringing the subject to life, being involving, having clear message content and indication of the activities required from the visitor. Similarly 'the positive response' set identified by Milan and Wourms (1992), included learning, feeling relaxed, having fun and being with family and friends. Interestingly, *'seeing real objects'* was also found to load significantly on the positive intrinsic dimension found in the present analysis. This provides further support for the need of perceived authenticity to ground 'immersion' experiences (Bitgood 1990, Bitgood et al 1990) and 'environmental encounters' (Clarke and Schmidt 1995).

Positive Intrinsic experiences, as measured by the first principal component, were also found to relate to tourism studies more generally, where the main component of the service experience in terms of explained variance has been identified as 'hedonics' and included being challenged in some way, being stirred imaginatively and having fun (Otto and Ritchie 1996). In addition, this dimension is comparable with the *'educational attainment'*[12]

[11] Functional Attributes do not describe the product's characteristics, but demonstrate the functional uses that the product performs for the individual.

[12] The educational attainment included 'having fun', 'being entertained', 'gaining knowledge', 'experience a sense of discovery and surprise', and 'satisfy my curiosity' (Tian et al 1997).

dimension derived by Tian et al (1996) for a variety of heritage attractions in North America.

Positive intrinsic expectation was found to be internally consistent and homogeneous with an alpha coefficient of .9395; corrected item-to-total correlations ranging from .5570 to .7339; and a mean inter-item correlation of .5967. Further, the alpha coefficient could not be improved by deleting any of the variables that were found to load at .5 or above on the positive intrinsic dimension.

Dimension 2: Reflective Instrumental Benefits Dimensions

Duhaime et al (1995) noted the self-actualisation and personal recognition experiences associated with art gallery visits. Elsewhere spiritual and personal introspection benefits have been found to form one of the more recent additions to the recreation experience preference (REP) scale, developed for out-door recreation planning in North America (e.g. Manfredo et al 1996). In the present study, introspective experiences formed the second latent dimension extracted (see Table 5.3). Interestingly, these reflective experiences appear to be distinct from the nostalgic experiences noted in museum and heritage studies (Goulding 1997, McIntosh 1997, Prentice et al 1998 & 1993) and other commentary (Lowenthal 1985, Hewison 1987) in that they are not a longing for an idealised past, but instead are generally forward looking (Merriman 1991)[13].

Variables which loaded significantly on the introspective experience dimension included *'thinking about the priorities in your life'*, *'feeling more appreciative of life today'*, *'feeling visits enrich your life'*, *'finding out things you can talk about later'* and *'feeling you've done something worthwhile with your time'*. These museum experiences attributes are reflective and highly personal. They demonstrate that museum exhibitions are anticipated to generate

[13] Merriman (1991) found museum visits were primarily used to help individuals think about the future, rather than regress into nostalgia.

insights, and provoke thoughtful consideration as individuals make a connection between what they see in the exhibition and their own lives. Reflective introspective experiences, as such, appear to be a form of cognitive analytical thought processes [14] (Hirschman 1985) in experiential consumption, which is normally associated with the information-processing paradigm and problem solving behaviour. As such, these reflective experiences could be seen as potentially more instrumental in tone, likely to extend beyond the time and spatial parameters of the museum visit itself, and likely to lead to a psychological, social or physical change (or improved conditions) in the individual, which has been described in recreational experiential perspective as 'benefits' (Driver et al 1991). However, these reflective museum experiences represent highly abstracted museum attributes [15], and are likely to correspond to the *functional* attributes defined by Lefkoff-Hagius and Mason (1993).

However, the functional attributes of reflective instrumental experiences, as mentioned earlier are highly personal . Further, the dimension also includes *'finding things to talk about later'* (see Table 5.3), highlighting the potential status signaling symbolic currency of museum visits, noted by Kelly (1987a &1993), and as such it seems likely that museum reflective instrumental experiences may operate at a higher level of abstraction than *functional* attributes (Lefkoff-Hagius and Mason 1993). Reflective instrumental experiences are likely to be *imagery* attributes (Lefkoff-Hagius and Mason 1993) which are linked to an individual's self-concept and terminal needs (Gutman 1982).

The reflective instrumental benefit dimension was found to have good internal reliability and homogeneity with an alpha coefficient of .8604; a mean inter-item correlation of .5582;

[14] Analytical in the sense that there is a systematic, linear and sequential reasoning process. The deductions or inductions of analytical thought process are consistent with the information-processing paradigm (Hirschman 1985).

[15] Abstracted attributes are more personal and occur when an attribute becomes increasingly remote from the specifics of the product. In contrast characteristic or concrete attributes relate to the specifics of the product offered (Lefkoff- Hagius and Mason 1993, Steenkamp and van Trijp 1997).

corrected item- to-total correlations of between .6372 to .7128; and no indication that the alpha coefficient could be improved by deleting any variables.

Dimension 3: Dysfunctional Setting Expectations

Table 5.3 shows that the third dimension extracted in the principal component analysis, reflects respondents' concerns with comfort and their ability to perform effectively in the museum environment. This third dimension consists of 'characteristic'[16] attributes in terms of Lefkoff-Hagius and Mason (1993) typology of attributes abstraction. The dimension was named '*dysfunctional setting expectations*' to reflect those variables which were found to load highly on it, and which included *'feeling uneasy and uncomfortable'*, *'feeling that you cannot talk openly'*, *'feeling unsure of how to look at the objects'*, *'feeling the exhibits are not designed for ordinary visitors'* and *'finding it tedious because there is too much to see'*. In museums, Hood (1993) and Olds (1994), as noted earlier, have stressed the importance of comfort and caring in allowing visitors to attend and 'see' the exhibits, although these assumptions have never been subject to quantitative testing. Interestingly, 'peace of mind' was also identified as a major dimension of service experience in a range of tourism sectors (Otto and Ritchie 1996), showing, as might be expected, that museum consumption experiences share common elements with other tourism products.

Tian et al (1996) who applied leisure preference scales from outdoor recreation studies to understand heritage experience, failed to identify a dysfunctional setting experience dimension. This is likely to be due in part to the lack of inductive generation of experience domains particular to heritage attractions, and her reliance on leisure experience domains developed for out-door recreation.

[16] Characteristic attributes are those that describe the product offered (Lefkoff-Hagius and Mason 1993). They are the most concrete types of product attribute in terms of level of abstraction (Gutman 1982).

The dysfunctional setting expectations dimension was found to have good internal reliability and homogeneity with an alpha coefficient of .8445; a mean inter-item correlation of .4369; corrected item to total correlations of between . 5334 to .6680; and no indication that the alpha coefficient could be improved by deleting any variables.

Dimension 4: Projective Absorption Expectations

In the present study, the fourth dimension extracted from principal component analysis represents the experiential cognitions described by Hirschman (1985). Variables which loaded significantly on this dimension included 'feeling a connection with the past', 'imagining what your life would have been like living in the past', 'imagining who used and how the objects were used' and 'feeling admiration for the skill and craftsmanship of people in the past'. Qualitative transcripts from the earlier interviews confirmed that these types of images were vivid, multi-sensory, often divorced from the external reality of what life would have been like for the respondents, and often based on limited understanding or information about what is being viewed (see exhibit 5.1).

Hirschman (1985) identified 4 types of the cognitive processes likely to occur in experiential consumption. These included imagery, arational/intuitive thought, autistic/self-serving thought and ecstasy/transcendence. These were not conceived as mutually exclusive but as four alternative ways of describing experiential cognition. Together these types of cognition were characterised by their subjective, holistic, sensory-emotional, arational and non-ordered nature.

Imagery thought was described as the activity of mentally creating a sensory impression which relied on one or more of the five sense modalities (Hirschman 1985). Imagery was characterised as an efferent phenomena, that can be generated without the presence of a specific stimulus, and upon which the individual has a great deal of control over what

Exhibit 5.1

"There is quite a nice Roman collection of Roman Scotland. They have a nice pewter ware, silver ware...small everyday items that puts things in context...and coins. I Like looking at coins. The designs that were on them. It was an immediate connection with the people who handled those coins. These were the small change that people carried about with them, the symbols they have on there are the same as ours; everyday images that had a meaning that perhaps ordinary people didn't necessarily think about...that is carried around and you don't really know what you've got. That's what it is like. It is something quite intimate. Unlike enormous golden chains or pieces of glassware that only rich people used, ordinary people had coins...it is like bringing people to life"
(respondent no.9, male)

"I think about the craftsmanship and imagine what the *atmosphere* must have been like and how people must have lived"
(respondent no.15, male)

"You open the door and you know in the year 1100 someone opened that door and went into that room. People actually live there. I just like to think of all the generations that passed through. It is so interesting, so full of stories and the human element..."
(respondent no.17, female)

"*It was exciting in the anthropology museum in Vancouver. Got some real fun. You walk into a primeval forest in British Columbia and you actually physically feel it and you realise that you are there. And then in another room you are on the shore. Very realistic. It is wonderful compared to our animals sitting in glass cases. They just set the thing in its environment.....the live impression... it is holistic. It is the fact that they transpose things and you can actually see the animal in context*"
(respondent no 15, male)

"*I think about what it would have been like if I'd lived there then, if I was the lady of the castle. It makes you think back to Scotland in the old days.*"
(respondent no.19, female)

"*I looked at this huge window, from floor to ceiling and you could see the gardens. You imagine how it must affect your whole life, waking up and looking out on those gardens*"
(respondent no.18, female)

"the craftsmanship about it, extraordinary the technology that they had and the intricate designs, the ability to make beautiful things with low technology, incredibly impressive ..just how exquisite some of this stuff and the design...it is just gorgeous. You marvel at the beauty of these things or the simplicity if this stuff. The safety pins. They are 3000 years old. It is astonishing how creative people were. You imagine that they didn't know very much and that all these products were the products of modern minds. But of course 3000 years is almost nothing in terms of human experience. It is pretty impressive"
(respondent no.9, male)

sensory images are generated and are able to manage the elaborate cognitive images as they are produced.

Arational or *intuitive* thought emphasises the process of experiential cognition as an un-ordered, holistic, non-rule based process and capable of completing a gestalt or total impression in the absence of complete corroborative evidence. Arational or intuitive thought is characterised by its ability 'to leap beyond what is known to construct a higher plane of order or pattern of relationships' (Hirschman 1985, p76) and stands in direct contrast to the logical semantic thinking associated with problem-solving.

Autistic or self-serving thought can be conceptualised as *'wakeful fantasy or daydreaming'* (Hirschman 1985). It is characterised by a relative or absolute dominance of the individuals' inner fantasy life when compared to the external reality, and is, as such, based on primary processing and the pleasure principal. Autistic or self-serving thought is believed to take form as visual images (Singer 1979, Hirschman 1985).

Ecstatic or transcendent cognitive thought represents a complete break from external sensory perception, self-consciousness and the logical processing of information and has most commonly been conceptualised as *peak experiences* (Maslow 1962) or *flow* (Csikszentmihalyi and Csikszentmihalyi 1988).

The projective absorption experience dimension was found to have acceptable reliability and homogeneity with an alpha coefficient .8445; corrected item-to-total correlations of between .5477 and .7121; a mean inter-item correlation of .4369; and no indication that the alpha reliability could be improved by deleting any of the variables.

Dimension 5: Psychomotor-Mindful Interactivity Expectations

Table 5.3 shows that perceptions of respondents' ability to interact with the exhibition, and in particular to use computers, models and touch objects, was the fifth and final dimension extracted in the principal components analysis. Elsewhere the importance of interactivity has been noted. For example, visitors have been found to be more mindful if they can interact with exhibits (e.g Moscardo 1996); 'ideal' exhibits have been described as those that involve you (Alt and Shaw 1984); and involvement, choice in process and control on service outputs have been identified as a significant dimension for tourism service experience quality (Otto and Ritchie 1996) and a platform for building value-driven relationships more generally (Tzokas and Saren 1997). Tian et al's (1996) study of experience outcomes across different heritage types did not identify this experience domain, and, as noted earlier, this is likely to be due in part to sampling error of the experience domain (Nunnally 1978), due to the deductive approach employed.

Significant variable indicators of the psychomotor-mindful interactivity dimension included *'using models'*, *'touching objects'* and *'using computers'*. Psychomotor-mindful interactivity experiences are as such represent *'characteristic'* museum attributes[19] (Lefkoff-Hagius and Mason 1993) and are concrete and low in terms of their level of abstraction in an individuals cognitive structure. Psychomotor-mindful interactivity was confirmed to have acceptable internal reliability and homogeneity with an alpha coefficient of .8601; corrected item-to-total correlations of between .6611 and .8147; and no indication that the alpha coefficient could not be improved by deleting any of the variables. However, the mean inter-item correlation of .6467 was particularly high suggesting that the construct may have been measured too specifically (Briggs and Cheek 1983).

5.3.2 Confirmatory Factor Analysis (CFA)

Confirmatory factor analysis (CFA) was used to test the five dimensional model derived form exploratory principal component analysis. In particular, CFA assessed whether the five principal dimensions were unique[18]. Further, CFA was used to examine whether the five dimensional structure would be able to explain the structural relations between museum experiences for both the idea and object based museums.

i) Variables Used In Confirmatory Factor Analysis

As noted in Chapter 2 and 4, Steenkamp and van Trijp (1991) advised a further stage in scale purification, beyond corrected item-to-total correlations and exploratory principal component analysis, prior to confirmatory factor analysis. In the present study a cut off point of .65 was employed (see Chapters 2 and 4).

Scale purification prior to CFA is complete if the reduced set of variables have an acceptable alpha reliability (Steenkamp and van Trijp 1991). Table 5.4 below details the alpha reliabilities for the reduced set of variables used to represent each latent construct in the idea and object based museums.

Table 5.4 Internal Reliability of Final Expectation Dimensions to be used in CFA as measured by Cronbach's Alpha.

Dimension 1 Positive Intrinsic Expectations	Dimension 2 Reflective Instrumental Benefits	Dimension 3 Dysfunctional Setting Expectations	Dimension 4 Projective Absorption	Dimension 5 Psychomotor-Mindful Interactivity
.8519	.8071	.7932	.7654	.8601

[18] This is achieved by restricting the ability of the latent variables to load on all the observed variables, as is the case in exploratory principal component analysis (Steenkamp and van Trijp 1991, see Chapter 2 for a more detailed discussion).

Figure 5.2 details the hypothesised five dimensional confirmatory factor model. The five dimensional model comprised of two items measuring the positive intrinsic expectations dimension; five items measuring the dysfunctional setting expectations dimension; three items measuring the reflective instrumental benefits dimension; two items measuring projective absorption dimension; and three items measuring the psychomotor-mindful interactivity dimension. The model specified was a first-order model where the latent dimensions were allowed to correlate. Multiple groups analysis procedures were employed in order to assess whether the five dimensional CFA model explained the data in both the idea and object-based museum sub-samples and if the structure of museum anticipated experience was affected by the museum interpretative style (see Chapter 2). In both the idea and object-based museums, the data did not have multivariate normal distributions (Mardia's coefficient = 47.563, CR = 14.893, p <.000 in the idea-based museum; and Mardia's coefficient = 131.297, CR = 41.111, p<.000 in the object-based museum). As such, asymptomatic distribution free (ADF) estimation was employed in testing the five dimensional models in Figure 5.2.

ii) Evaluation of overall model fit (Convergent Validity)

The resulting global fit was poor. The Chi-square statistic was highly significant (Chi-square =387.28, df=160, p <.000, see Figure 5.2) indicating the model did not fit the data well. Other global absolute goodness of fit measures suggested the model could be marginally accepted (GFI =.91, AGFI=.87, x^2/df=2.42, RMSEA = .06). However, incremental goodness of fit measures (TLI=.82, CFI = .86, NFI = .79) were unacceptable and suggested that the model could be improved significantly.

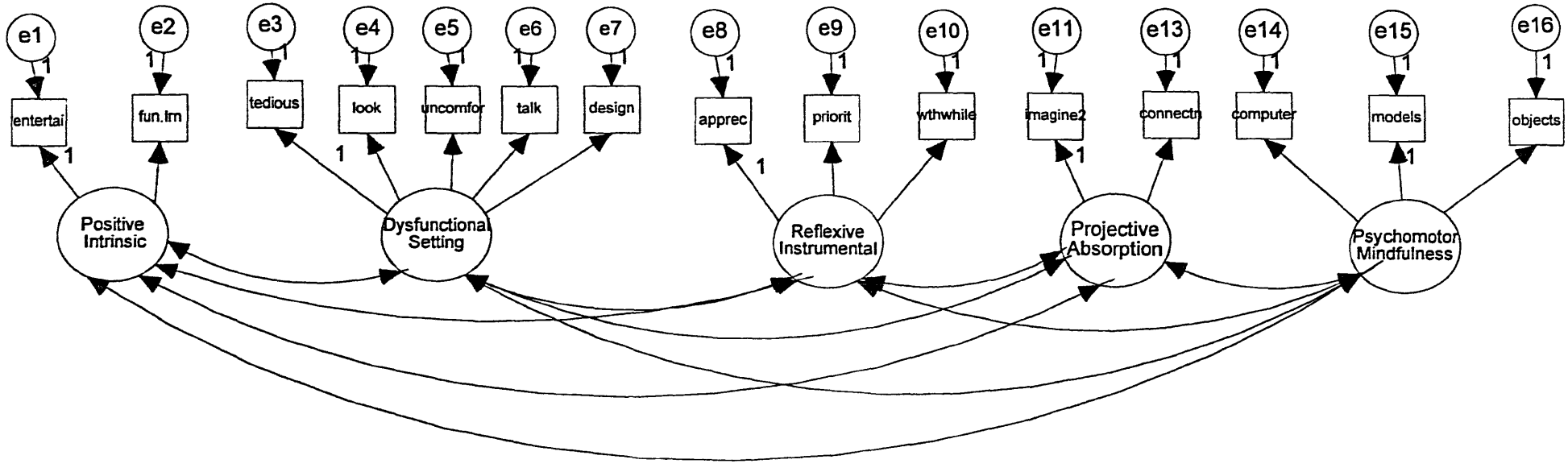


Figure 5.2: **Five Dimensional Model of Experiential Museum Images (Subjective Probability)**

The model in Figure 5.2 was rejected and examination of the symmetric matrix of standardised residuals identified a number of problematic observed variables with standardised residuals of greater than +/- 2.0. These included *'feeling you've done something worthwhile'*, *'feeling you cannot talk openly'*, and *'feeling the exhibitions was not designed for ordinary visitors'*. In both museum sub-samples, these variables were found to have large standardised residuals (i.e. greater than 2.0 and less than –2.0) and no pattern was found to suggest sub-groups of variables may constitute a separate factor or that a variable belonged to a different factor [19]. As such *'feeling you've done something worthwhile'*, *'feeling you cannot talk openly'*, and *'feeling the exhibitions was not designed for ordinary visitors'* variables were deleted (Steenkamp and van Trijp 1991).

A second iteration of the model was found to fit the data well. Overall goodness of fit measures suggested that the five dimensional model could be marginally accepted as there was little residual or unexplained variance (Chi-square = 120.28, df = 88, p=.01, x^2/df=1.37, GFI=.95, AGFI=.91, RMSEA= .03). Only the Likelihood ratio chi-square was found to

[19] In the object based museum ***'feeling you've done something worthwhile'*** had high standardised residuals with *'finding learning fun'* and *'feel entertained'* on the positive intrinsic latent factor (10.756 and 10.520, respectively); *'Feel a connection with the past'* and *'imagine what your life would have been like'* on the projective absorption dimension (7.296 and 7.091, respectively); and with *'using models'*, *'using computers'* and *'touching real objects'* on the psychomotor mindfulness dimension (6.592, 7.296 and 5.177, respectively). Further, *'feeling you've done something worthwhile'* did not have standardised residuals of less then –2.0 with variables on the reflective instrumental benefit dimension, which would suggest that it had been assigned to the wrong factor dimension. Similarly, in the idea-based museum sub-sample, *'feeling you've done something worthwhile'* had high standardised residuals in excess of +3.0 with all variables on the positive intrinsic dimension, and in addition had high standardised residual of 3.315 and 2.064 with *'touching real objects'* and *'using models'* on the psychomotor mindfulness dimension.
'Feeling the exhibits were not designed for ordinary visitors' was to have excessive negative standardised residual with *'using objects'* (-2.90 and –2.639) and *'using models'* (-3.128 and –3.762), in the idea and object-based museum sub-samples respectively. In addition, *'feeling the exhibits were not designed for ordinary visitors'* had a high positive standardised residual of 2.234 with *'thinking about the priorities in your life'* in the idea-based museum sub-sample.
'Feeling you cannot talk openly' was found to have high positive standardised residual with *'imagining what your life would have been like'* (2.396 and 2.758) and *'thinking about the priorities in your life'* (2.703 and 2.628) in both the idea and object-based museums, respectively. However, *'feeling you cannot talk openly'* was not found to have negative standardised residual of less than –2.0 with any of the variables on the dysfunctional setting factor which would have suggested that the variable had been assigned to the wrong dimension. In addition, *'feeling you cannot talk openly'* had a high standardised residual of 3.389 with *'feeling more appreciative of your life'*, in the idea-based museum sub-sample.

reject the model[20]. Incremental goodness of fit measures were generally above the recommended threshold of .90 (TLI=.94, CFI=.96, NFI=.86) showing that there was little room for improvement. However, the residual variance in *'using models'* was negative and as such the model was unacceptable. The residual variance (e11) was fixed to a small positive value of .005 (Hair et al 1995) in order to eliminate the negative error variance. Fixing the residual error variance for *'using models'* increased the degrees of freedom in the five dimensional CFA models by one.

A third iteration of the five dimensional CFA models was undertaken (see Figure 5.3). The resulting model was found to have acceptable absolute (Chi-square = 120.28, df = 89, p=.02, x^2/df=1.35, GFI=.95, AGFI=.91, RMSEA= .03) and incremental goodness of fit measures (TLI=.91, CFI=.94, NFI=.86). There were no 'offending estimates' in terms of negative variances, standardised coefficients that exceeded or approached 1.0 or large standard errors, and all error variables for both independent exogenous variables and dependent endogenous variables were significant.

ii) Latent Variable (Measurement) Model Fit

The measurement models for in the five dimensional CFA analysis (see Figure 5.4 and Table 5.5) were found to be satisfactory in both museum sub-samples. Table 5.5 shows that the internal structure of the model was satisfactory. All factor weightings were significant and above .5, and the majority of observed variables had individual reliabilities above the recommended level of .5 (Bagozzi and Yi 1988), demonstrating that over 50% of their variance was explained by their latent or unobserved dimensions. Exceptions, where individual reliabilities for observed variables fell below the .5 level required for non-exploratory studies, included *'feeling unsure how to look at the objects'*, *'feeling uneasy or*

[20] The problems with the x^2 measure have been widely discussed (e.g. Bagozzi and Yi 1988, Gerbing and Anderson 1992, Hair et al 1995, Maruyama 1988), and it is generally agreed that other absolute and incremental fit indices should be considered or relied upon in evaluating if a model achieves an acceptable level of fit.

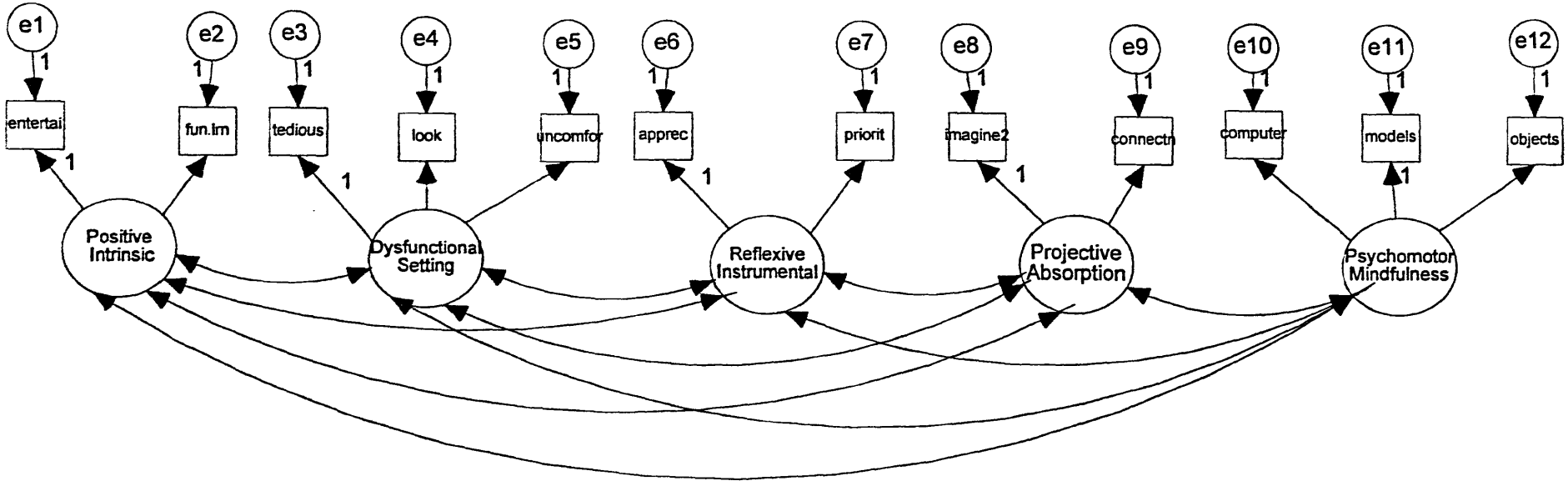


Figure 5.3: Modified Five Dimensional Model of Experiential Museum Images (Subjective Probability)

uncomfortable' and *'using computers'* in the object-based museum sub-sample (.41, .32 and .28, respectively); and *'feeling unsure of how to look at the objects'* and *'finding it tedious'*, in the idea-based museum sample (.33 and .43, respectively).

Elsewhere it has been recommended that variables with low individual reliabilities should be deleted (Babin et al 1994, Bitner and Hubbert 1994). It was decided, however, to retain these items if the construct and variance extracted measures, used to assess the reliability of the latent constructs upon which these observed variables had been regressed, were satisfactory and above the required minimum criteria of .6 and .5 respectively (Bagozzi 1982). It was acknowledged, however, that if retained in the model only 33% and 43% of the variance in *'feeling unsure of how to look at objects'* and *'finding it tedious'* would be explained by the dysfunctional setting latent construct, in the object-based museum sample; and only 32% and 41% of the variance in *'feeling uncomfortable'* and *'feeling unsure how to look at objects'* would be explained by the dysfunctional setting construct, in the idea-based museum sub-sample. This suggests that future research needs to concentrate on improving the individual reliability of these constructs.

Construct and variance extracted measures used to assess the reliability in the 5 latent dimensions were found to be satisfactory and are shown in Table 5.5 (see Chapter 2 for the formula used to calculate these). Overall, the latent constructs achieved the minimum required levels of .7, for reliability, and .5 for average variance extracted, except for the dysfunctional experience dimensions in the object-based museum sample, where the average variance extracted of .42 was below the required .5 recommended threshold from non-exploratory studies (Bagozzi and Yi 1988).

Table 5.5: Factor Weightings, Individual & Construct Reliability and Variance Extracted Measures for Five Dimensional CFA Model

	Factor Weighting	Individual Item Reliabilities	Composite Construct Reliability	Average Variance Extracted
Idea-Based Museum				
Positive Intrinsic Expectations				
Feel entertained	.74	.55	.77	.67
Find learning fun	.84	.71		
Dysfunctional Setting Expectations				
Find it tedious	.90	.80	.75	.51
Feel unsure of how to look at the objects	.64	.41		
Feel uneasy or uncomfortable	.56	.32		
Reflective Instrumental Benefits				
Feel more appreciative of life today	.80	.64	.80	.67
Think about the priorities in your life	.83	.69		
Projective Absorption				
Imagine what your life would have been like	.84	.71	.86	.76
Feel a connection with the past	.90	.80		
Psychomotor Mindful Interactivity				
Use computers	.53	.28	.74	.51
Use models	.98	.95		
Touch real objects	.55	.30		
Object-Based Museum				
Positive Intrinsic Expectations				
Feel entertained	.91	.83	.95	.83
Find learning fun	.91	.82		
Dysfunctional Setting Expectations				
Find it tedious	.65	.43	.69	.42
Feel unsure of how to look at the objects	.57	.33		
Feel uneasy or uncomfortable	.72	.51		
Reflective Instrumental Benefits				
Feel more appreciative of life today	.77	.59	.79	.65
Think about the priorities in your life	.84	.71		
Projective Absorption				
Imagine what your life would have been like	.84	.71	.79	.65
Feel a connection with the past	.77	.60		
Psychomotor Mindful Interactivity				
Use computers	.70	.49	.87	.69
Use models	.92	.85		
Touch real objects	.66	.74		

Discriminant Validity

In both museum sub-samples, the five dimensional CFA models were examined for latent constructs which correlated highly, at above .90. Table 5.6 demonstrates that none of the latent constructs were correlated at above .90, providing initial support for the discriminant validity for these dimensions (Bagozzi and Yi 1988, Hair et al 1995).

Table 5.6: Correlations between Pairs of Latent Expected Experience Constructs (Standard errors)

	Positive Intrinsic	Dysfunctional Setting	Reflective Instrumental	Projective Absorption	Psychomotor Mindful
Idea Based Museum					
Positive Intrinsic	1.00				
Dysfunctional Setting	-.29 (.08)	1.00			
Reflective Instrumental	.69 (.09)	-.21 (.08)	1.00		
Projective Absorption	.71 (.10)	-.24 (.10)	.59 (.12)	1.00	
Psychomotor Mindful	.51 (.10)	-.08 (.10)	.31 (.08)	.17 (.09)	1.00
Object-Based Museum					
Positive Intrinsic	1.00				
Dysfunctional Setting	-.62 (.16)	1.00			
Reflective Instrumental	.82 (.18)	-.40 (.14)	1.00		
Projective Absorption	.76 (.18)	-.28 (.14)	.89 (.17)	1.00	
Psychomotor Mindful	.62 (.18)	-.26 (.17)	.62 (.17)	*.39 (.17)*	1.00

Pairwise comparison tests[21] of the latent constructs are given in Table 5.7 (overpage). As can be seen, generally all chi-square differences were clearly significant (there was a significant drop in x^2 from the restrained to the unconstrained model), indicating that discriminant validity exists between the scales. Only for the pairwise test between *projective absorption* and *psychomotor mindfulness* constructs in the object-based museum was there a lack of significant difference between the two models (see Table 5.7). This suggests that these two constructs may be perfectly correlated. An examination of the correlation and associated standard error between *projective absorption* and *psychomotor mindfulness* (see table 5.6), however, revealed that the correlation was less than 1.00 by more than twice the standard error. This finding suggests that there is adequate discriminant validity, in that there is less than a 5% chance that the correlation observed between the constructs could include 1.0.

Additional support for the discriminant validity between the *projective absorption* and *psychomotor mindfulness* constructs was found in an examination of the average variance

[21] Chi-square comparison tests represent a more formal test of discriminant validity than achieved by an examination of the interfactor correlation coefficients. The pairwise correlations between latent constructs were examined to determine if nested models, where the correlation between the two latent constructs in one model was restricted to 1.0, while in the second model the correlation was free or unconstrained, were significantly different (e.g. Selnes 1996, Bagozzi and Kimmel 1995).

extracted and interfactor correlation. Average variance extracted measures calculated for the *projective absorption* and *psychomotor mindfulness* constructs (.65 and .69 respectively, see Table 5.5) were greater than the correlation between the constructs (.39, see Table 5.6)

Table 5.7: **Assessment of Discriminant Validity: Chi-square difference tests between each pair of Latent constructs (Measurement Scales) for the Idea and Object-Based Museums**

Latent Constructs	Constrained Model		Unconstrained Models			Difference Between Models	
	df	x^2	x^2	*P*	*GFI* *CFI*	x^2	*p*
Idea-Based Museum							
Positive Intrinsic & Dysfunctional setting	5	97.39	7.95	.09	.963 .922	89.44	p<.01
Positive Intrinsic & Reflective Instrumental	2	24.11	2.83	.09	.938 .968	21.28	p<.01
Positive Intrinsic & Projective Absorption	2	9.350	0.27	.60	.997 1.00	9.32	p<.01
Positive Intrinsic & Psychomotor Mindful	6	9.350	2.40	.79	.987 1.00	6.95	p<.01
Dysfunctional Setting & Reflective Instrumental	5	99.07	9.47	.05	.967 .950	89.60	p<.01
Dysfunctional Setting & Projective Absorption	5	67.07	3.13	.54	.987 1.00	63.94	p<.01
Dysfunctional Setting & Psychomotor Mindfulness	10	62.22	15.17	.09	.948 .921	47.05	p<.01
Reflective Instrumental & Projective Absorption	2	5.19	.025	.62	.999 1.00	5.17	p<.05
Reflective Instrumental & Psychomotor Mindfulness	6	33.08	5.29	.38	.980 .997	27.79	p<.01
Projective Absorption & Psychomotor Mindfulness	6	31.02	10.68	.10	.951 .938	20.34	p<.01
Object-Based Museum							
Positive Intrinsic & Dysfunctional setting	5	138.70	15.85	.003	.964 .910	122.85	p<.01
Positive Intrinsic & Reflective Instrumental	2	6.226	.03	.87	1.00 1.00	6.24	p<.05
Positive Intrinsic & Projective Absorption	2	6.67	1.00	.32	.996 .963	5.67	p<.05
Positive Intrinsic & Psychomotor Mindful	5	9.99	1.51	.83	.998 1.00	8.48	p<.01
Dysfunctional Setting & Reflective Instrumental	5	74.54	10.38	.04	.982 .947	64.16	p<.01
Dysfunctional Setting & Projective Absorption	5	65.34	5.90	.21	.988 .981	59.44	p<.01
Dysfunctional Setting & Psychomotor Mindfulness	9	66.67	16.14	.04	.983 .966	50.53	p<.01
Reflective Instrumental & Projective Absorption	2	7.50	.004	.95	1.00 1.00	7.50	p<.01
Reflective Instrumental & Psychomotor Mindfulness	5	4.62	0.88	.928	.999 1.00	3.74	p=.05
Projective Absorption & Psychomotor Mindfulness	5	2.980	2.962	.564	.996 1.00	.02	p>.10

(Babin and Boles 1998). On balance, the majority of evidence suggested that there was good discriminant validity between the *projective absorption* and *psychomotor mindfulness* constructs in the object-based museum sub-sample.

Overall, based on the several tests of discriminant validity employed (see in particular Tables 5.6 and 5.7) the five dimensional CFA models of anticipated museum experiences were judged to have acceptable discriminant validity in both museum sub-samples.

iii) Assessing whether Museum Attraction Style Affects the Five Dimensional CFA Anticipated Experience Model

The different orientations to museum interpretative design followed by The New and Old Museological traditions were noted earlier in the chapter (and are discussed more broadly in Chapter 1). Strong and significant differences in the experiential outcome opportunities perceived by respondents in these two museums styles provides one test for the validity of the distinction between the New and Old Museology proposed by museum professionals (e.g. Stam 1993, Harrison 1993, Honan 1990). Partial support for the validity of the competing Museological orientations was provided earlier in the chapter using bi-variate Chi-square analysis. Testing whether the five dimensional CFA models are equivalent across the two museum sub-samples will provide a more sophisticated and rigorous test for this distinction, which accounts for the partitioning of observed variables into discrete groups and measurement error.

Bagozzi (1983) provided a methodology for testing for the validity of segments, based on a sequential series of tests, which examined the differences between market segments using structural equation modelling with latent variables. This approach takes account of measurement error and, more pertinently, is capable of identifying the basis on which the segments differ. This is achieved by examining where on the structural equation model the

two museum groups differed. Bagozzi's (1983) methodology as such offers a hierarchy of tests that determine the extent to which segmentation validation has been achieved.

The first step in establishing that two groups are distinct is to test the hypothesis that the groups have equal variance-covariance structures. Failure to reject this hypothesis suggests that the sub-groups should be pooled and treated as a single population. The variance-covariance matrices for the five dimensional models shown in Figure 5.4, were examined for invariance across the idea and object-based museum sub-samples. The hypothesis of equal variance-covariances was rejected (Chi-square = 188.50, df = 67, p <.000) and provided the first level of support for the distinction between the New and Old Museology in terms of the perceived experiential opportunities available, as measured by the idea and object based museum collages.

In order to ascertain where the idea and object-based museums differed in terms of expected experience opportunities, the five dimensional CFA model from Figure 5.4 was tested for invariance across the two museum sub-samples in terms of a) factor weightings (measurement pattern); b) interfactor correlations; c) latent variable variance and d) residual variable variance.

Table 5.8 confirms that the idea and object-based museums differed considerably. The two museum styles were found to differ significantly in every aspect of the five-dimensional CFA model of museum expected experience. This suggests that while the five dimensional factor model is appropriate to describe the structure of anticipated museum experience, the dynamics of this experience in terms of the amount to which latent

Table 5.8: **Testing for Differences between the Idea and Object-Based Museum Styles in terms of Perceived Experiential Opportunities**

Hypotheses	Constrained Model		Difference Between Nested Models		
	x^2	df	$x^2/2$	df/2	p
Invariant factor (measurement) pattern	142.55	96	22.27	7	p<.005[22]
Invariant inter-factor correlation	194.94	99	74.66	10	p<.001[23]
Invariant latent factor variance	207.07	94	86.78	5	p<.001[24]
Invariant residual variance in observed variables	176.42	100	56.23	11	p<.001[25]

experiential dimensions load on individual observed experiences, the relationship between the five latent experiential dimensions, and the variance in latent experiential dimensions vary substantially between the two museum styles. As such, the present study finds strong evidence to suggest that the structure of anticipated museum experience is the same regardless of museum attraction type, and consists of five principal experiential dimensions, including positive intrinsic experience, dysfunctional setting experience, reflective instrumental experiences, projective absorption experiences and psychomotor mindfulness experiences. However, museum attraction type was found to affect the 'structural dynamics' of museum anticipated experiences, as measured by the five principal

[22] The CFA model where the factor loading matrix was constrained to be equal across the two groups had a Chi-square value = 142.55, df = 96. The $x^2/2$ is computed by taking the Chi-square value and degrees of freedom of the unconstrained model (Figure 5.4) away from the Chi-square value and degrees of freedom of the constrained model (i.e. $x^2/2$=142.55-120.28, df/2= 96-89).
The x^2 difference test confirms that the factor pattern matrix in the idea and object-based museum sub-samples are significantly. The invariant (constrained) model is significantly different from the model where the regression weights were allowed to differ. This shows that that a fixed unit change in the latent construct (e.g. psychomotor mindfulness) in both museum sub-samples, will not correspond to the same amount of unit change in an observed variable (e.g. using computers). This suggests that the dynamics of anticipated museum experiences vary in the idea and object-based museums, in that, the latent variable load differently on the observed variables in the two museum sub-samples.
[23] This shows that that the relationships between the five latent perceived experience constructs were not the same in each museum sub-sample.
[24] This shows that the two museum sub-samples differ in terms of in terms of the range (i.e. between the highest level of constraint and highest level of control) of the positive intrinsic, dysfunctional setting, projective absorption, reflective instrumental and psychomotor mindfulness experience opportunities respondents anticipate in visiting each museum type.
[25] This shows that the latent residual variable associated with observed variables, and which consists of both measurement error and unique variance not accounted for in the five dimensional CFA model, differs in the idea and object-based museum.

samples should be treated independently, but more pertinently, these findings show that there is a valid distinction between the New and Old Museology in terms of the dynamics of the experience opportunities respondents expect to gain from these differing environments.

As such, the present findings show that an individual's anticipated experience of a place, as measured by differing interpretative orientations in museum environments in the present study, impact on the structural dynamics perceived. This provides further support for the study of designed space or what has commonly been termed atmospherics or servicescapes. Furthermore, while previous studies have focused only on emotional reactions to designed space (Mehrabian and Russell 1976), the present study has shown that five distinct cognitive reactions to designed space were successfully measured for the museum environment, providing some support for Bitner's (1992) expanded model of response moderators to physical designed space.

Having shown that the anticipated museum environment affects the experiential opportunities perceived in museum, the following section seeks to determine if respondents' characteristics, in terms of socio-demographics, affects the museum experiences anticipated.

5.4 Factors Influencing the Expected Experiential Outcomes Perceived at Museums

Individuals have been found to attend to museum interpretation differently because of their differing *'personal contexts'* (Stewart et al 1998, Prentice et al 1998b, Prentice and Cunnell 1998, Prentice 1996, Duhaime et al 1995, Light 1995, Falk and Dierking 1992), *'cultural imaginings'* (McDonald 1992, Goffman 1983) and *'cultural preconceptions'* (McCraken 1988). Other studies have also noted that the experiences gained at heritage attractions vary by educational (Prentice and Cunnell 1997, Moscardo 1996, Duhaime et al 1995, Prentice 1993a), social class (e.g. Prentice 1993a&b) and other socio-demographic (e.g. Tian et al 1996) differences in the visitor base. Studies focused on hedonic consumption more generally have similarly found this type of consumption to be to be contingent on

gender, age, attitude towards the past, leisure life-style, general life-style, past attendance and childhood socialisation (Holbrook and Schindler 1994, Lacher 1994, Hirschman 1983, Andreasen and Belk 1980, Hirschman and Holbrook 1982). Together these studies suggest a need to understand the relationship between the museum images held by individuals and the visitor (in terms of background socio-demographics, leisure agendas, museum socialisation and interests).

Understanding the socio-demographic and other 'determinants' of museum experiential images and reactions to the museum opportunity-spectrum, or 'experiencescape', offers potential benefits to museum managers. These include the ability to develop and target product and communication policies that empower consumers to take a more proactive role in creating their own experiences (Jackson et al 1996, Deighton 1992) as well as to selectively target and attract visitor types to ensure a visitor's perceived level of positive experiences are met and further facilitated, while the effects of perceived negative experiences are minimized (Loomis 1993). To date, however, research on the determinants of museum images and expectations has received minimal attention. Taken together studies have made passing reference to past experiences of visiting similar museum settings, word of mouth, museum and other media communications (Andersen et al 1997, Soren et al 1996, Duhaime et al 1995, McLean 1993 &1995, Reid and Crompton 1993, Falk and Dierking 1992). Exceptions to the superficial and non-empirical understanding of the determinants of museum expectations include Prince (1990) and Prince et al (1985) who examined the social class as a determinant of museum image and employed a large and sophisticated sampling base. Both studies, however, examined the relative image or perceived similarity of cultural attractions and as such failed to identify the main constituents of museum image or whether these were social class contingent. As such, although the contributions of Prince (1990) and Prince et al (1985) are noteworthy for their attention to the determinants of image expectations, these studies have offered little assistance in terms of product and market development. In summary, museum and heritage studies focused on the determinants of museum image and expectations are

characterised by their reliance on a narrow range of possible image determinants and, more pertinently, a lack of conceptual focus or development.

In contrast, over the last twenty-five years tourism studies have developed a substantial conceptual understanding of destination images and their determinants. The present study, by concentrating on the *organic* images (Crompton 1979b, Gunn 1972 & 1988, Shelby and Morgan 1996, Stabler 1988) of the two contrasting museum styles focuses on one aspect of this popular taxonomic framework. Faykeye and Crompton (1991) defined organic images as the awareness and knowledge held by individuals before they exposed to destination promotions. O*rganic* images, as such are differentiated from *induced* images (which are formed when individuals are exposed to promotional materials), and *complex* images (which result from actual experience of place), by their degree of credibility and managerial control (Gartner 1993, Faykeye and Crompton 1991, Shelby and Hunt 1996, Andersen et al 1997). Further, that organic images have been found to be dependent on personal experience, learning and prejudice, stresses the importance of understanding the impact of socio-demographic and other individual characteristics on the museum images held by respondents. In addition, the *'sufficiency principal'* associated with attitude-intention models, such as TRA and TOPB, holds that variables external to these models, and which may include socio-demographics, personality and past experience, are related to intentions and behaviour only indirectly through their impact on beliefs. As such, organic experiential beliefs, which capture the respondent's subjective assessment of probability that they can realise experiences in museum setting, are expected to identify and explain sub-groups differences in the population which have commonly been associated with different levels of visiting behaviour and/or intention (see Prentice 1993a and Merriman 1991 for reviews).

The present study sought to assess the extent to which organic experiential images[23] vary by socio-demographic, and other 'determinants', which are likely to be important for service delivery and customer satisfaction (Iacobucci and Ostrom 1996, Otto and Ritchie 1996), market development, communication and image positioning (Davies and Prentice 1995, Cooper-Martin 1992, Herbert 1989, Light 1987). In order to assess whether the five experiential domains identified in CFA analysis were experienced differently by socio-demographic and other sub-groups in the present sample, summated variables were calculated as surrogate variables to represent the five organic experiential domains. Table 5.9 details the possible relationships between latent experiential image dimensions, identified in confirmatory factor analysis and respondent's socio-demographic background, museum socialisation, museum past behaviour, and museum related life-style activities.

Findings of the present study show that socio-demographics, and in particular age, gender, social class and education, were found to be far more pervasive 'determinants' of expected experiential domains in both in the object and idea-based museum styles, than respondent's social class socialisation, museum socialisation, museum past behaviour and museum related life-style variables.

[23] It is recognised that respondents were presented with a pictorial image of the museum. As mentioned in Chapter 2, these pictorial stimuli served to define the museums style studied formally for the respondents, so as to increase the validity and reliability of the present research design. The pictorial stimuli were not promotional materials and are not therefore considered to result in 'induced' museum images. Further, the pictorial collage did not represent one single museum, or museum that the respondents would have been likely to visit and as such, the images measured cannot be seen as complex.

Table 5.9: Analysis of Variance: The Effect of Socio-Demographics on Expected Museum Experiential Outcomes Domains

Idea Based Museum Sub-sample (n=200)

	Dimension 1 Positive Intrinsic Experiences	**Dimension 2** Dysfunctional Setting Experiences	**Dimension 3** Reflective Instrumental	**Dimension 4** Projective Absorption	**Dimension 5** Psychomotor Mindful Setting Experiences
Respondent's Socio-demographics					
Gender	12.345 (1) .001	-	9.563 (1) .002	14.905 (1) .000	-
Age	-	-		-	14.385 (2) .000
Education	-	-	9.586 (2) .000	-	-
Income	-	-		-	-
Social Class	5.439 (4) .000	-	3.697 (4) .006	2.594 (4) .04	-
Household	11.789 (4) .04	-	2.667 (4) .001		5.603 (4) .000
Location	-	-	-	-	-
Socialisation					
Parent's Education	-	-	-	-	-
Father's Occupation at 10yrs	-	-	-	-	-
Visits with family as a child	-	-	-	-	-
Visits with School as a child	-	-	-	-	-
Interest as a child	-	-	-	-	-
Interest of Parents as a child	-	-	-	-	-
Museum Past Behaviour					
Recency of last visit	-	-	-	-	-
Frequency of Visits	-	-	-	-	-
Museum Situational Behaviour					
Day trip	-	-	-	-	-
VFR	-	-	-	-	-
Holidays	-	-	-	-	-
New Exhibition	-	-	-	-	-
Re-visit	-	-	-	-	-
Rainy Day	-	-	-	-	-
Occupy Children	-	-	-	-	-
Museum Related Life-style					
Genealogy	-	-	-	-	-
Historical Re-enactment's	-	-	-	-	-
Read historical non-fiction books	-	-	-	-	-
Member of historical Organisation	-	-	-	-	-
Kept a Collection	-	-	-	-	-
Watch historical documentaries	-	-	-	-	-
Watch historical fiction	-	-	-	-	-
Studied history	-	-	-	-	-

Information given in each cell: F value, Degrees of freedom, Significance level.

Table 5.9 continued: Analysis of Variance: The Effect of Socio-Demographics on Expected Museum Experiential Outcomes Domains

Object Based Museum Sub-sample (n=200)

	Dimension 1 Positive Intrinsic Experiences	**Dimension 2** Dysfunctional Setting Experiences	**Dimension 3** Reflective Instrumental	**Dimension 4** Projective Absorption	**Dimension 5** Psychomotor Mindful Setting Experiences
Respondent's Socio-demographics					
Gender	17.265(1) .000	-	18.163 (1) ..000	18.852 (1) .000	4.103(1) .02
Age	5.868 (2) .003	-	6.745 (2) .001	6.625 (2) .002	-
Education	7.862 (2) .001	-	12.383 (2) .000	7.090(2) .001	5.932 (2) .003
Income		-	-	-	-
Social Class	5.862 (4) .000	-	5.434 (4) .000	3.540 (4) .008	2.421 (4) .05
Household	4.140 (4) .003	4.904 (4) .001	2.768 (4) .03	26.416 (4) .008	2.434 (4) .05
Location	-	-	-	-	-
Socialisation					
Parent's Education	-	-	-	-	-
Father's Occupation at 10yrs	-	-	-	-	-
Visits with family as a child	-	-	-	-	-
Visits with School as a child	3.3904 (2) .04	9.250 (2) .000	-	-	3.678 (2) .03
Interest as a child	-	-	-	-	-
Interest of Parents as a child	-	-	-	-	-
Museum Past Behaviour					
Recency of last visit	-	6.770 (2) .001	-	-	-
Frequency of Visits	3.879 (2) .02	7.977 (2) .000	-	-	-
Museum Situational Behaviour					
Day trip	-	-	-	-	-
VFR	-	-	-	7.483 (1) .007	-
Holidays	-	-	-	-	-
New Exhibition	-	-	-	-	-
Re-visit	-	-	-	-	-
Rainy Day	5.869 (1) .02	-	-	-	7.270 (1) .008
Occupy Children	-	-	-	-	-
Museum Related Life-style					
Genealogy	-	-	-	-	-
Historical Re-enactment's	-	-	-	-	-
Read historical non-fiction books	-	8.297 (1) .004	-	-	-
Member of historical Organisation	-	-	-	-	-
Kept a Collection	4.269 (1) .04	-	-	-	6.707 (1) .01
Watch historical documentaries	-	8.085 (1) .005	-	-	-
Watch historical fiction	-	-	-	-	-
Studied history	-	-	-	-	-

Information given in each cell: F value, Degrees of freedom, Significance level.

5.4.1 The Effects of Socio-demographics on the Museum Experience Domains Expected by Respondents

In the present study, certain effects were found which suggested possible relationships between a respondent's socio-demographic background and the types of experiential outcomes they perceived to be on offer in the idea and object based museum settings.

5.4.1.1. Effects of gender on positive intrinsic and reflective instrumental museum images

Gender difference has been found to impact hedonic consumption (Lacher 1994, Holbrook and Schindler 1994, Andreasen and Belk 1980). Lacher (1994), for example, found males were more likely to have an analytical, while females were more likely to have a sensorial and imaginal, response to music. The findings, in the present chapter, similarly provide evidence to suggest gender may affect the museum outcomes perceived by respondents. In particular, females seem more likely to perceive imaginary and emotional outcomes than their males counterparts, as measured by differences between gender groups on positive intrinsic, reflective instrumental benefit and projective absorption domains (Table 5.9). These gender differences were found in both the idea and object-based museum environments.

Table 5.10 shows for men and women, the mean values associated with the positive intrinsic, reflective instrumental and projective absorption expectation summated scores.

In both the idea and object based museum sub-samples, men were on average less likely than women to expect positive intrinsic experiences opportunities ($p<.001$ and $p<.000$, respectively), engage in projective fantasy creation ($p<.000$ and $p<.000$, respectively) and be

Table 5.10: Effect of Gender on Positive Intrinsic, Reflective Instrumental and Projective Absorption Experiences in the Idea-Based Museum

	Gender	*Mean*	T value (df) significance
Positive-Intrinsic Expectations			
Idea-Based Museum	Males (n=87)	*2.87*	12.345 (1)
	Females (n=113)	*3.92*	.000
Object-Based Museum	Males (n=84)	*.26*	17.265 (1)
	Females (n=116)	*2.05*	.000
Projective Absorption Expectations			
Idea-Based Museum	Males (n=87)	*2.40*	14.905 (1)
	Females (n=113)	*3.66*	.000
Object-Based Museum	Males (n=84)	*.32*	18.852 (1)
	Females (n=116)	*1.98*	.000
Reflective Instrumental Expectations			
Idea-Based Museum	Males (n=87)	*1.45*	9.67 (1)
	Females (n=113)	*2.60*	.002
Object-Based Museum	Males (n=84)	*-.4881*	18.163(1)
	Females (n=116)	*1.301*	.000

personally reflective about what they saw ($p<.002$ and $p<.000$). On average females, as such, were more likely than men to expect to *'find learning fun'*, *'feel entertained'*, *'imagine what their life would have been like living in the past'*, *'feel a connection with the past'*, *'think about the priorities in their lives'* and *'feel more appreciative of life today'*. In absolute terms both men and women on average expect more of these experiential outcomes (positive intrinsic, projective absorption and reflective instrumental) in the idea-based museum than they did in the object-based museum (see Table 5.10). However, the fact that strong gender effects of equivalent magnitude are found in both museums, suggests that the museum environment or style has little impact in negating the gender basis of these consumption experiences. Together the above findings support suggestions that females, being more predisposed to right brain activity compared to males, are more likely to engage in fantasy and become emotionally involved in consumption experiences (Hirschman 1984), irrespective of the type of museum they attend to.

5.4.1.2 Effects of age on experiences Positive Intrinsic and other experiential expectations

Holak and Havlena (1992) found tangible items such as clothes, books and toys serve as stimuli for nostalgic reminiscences of childhood or early adulthood in particular. Similarly, museum studies have described instances where visitors recount memories or describe other personal experiences while interacting with exhibits (Fitchett and Saren 1997, Goulding 1997, Beeho and Prentice 1995, Crang 1996, Squire 1994, Falk and Dierking 1992). For these reasons museum artefacts have successfully been used as outreach therapy for older individuals (Clark 1991) and together these studies suggest that older respondents may perceive museum experiential outcome opportunities differently from their younger counterparts. Indeed, recently both Prentice and Cunnell (1997) and Light (1995) found older visitors were more likely to attend to a variety of interpretative media and suggested that older visitors may be looking for greater understanding than their younger counterparts.

In the present study, significant positive relationships were found between age and reflective instrumental ($p<.001$), projective absorption ($p<.002$) and positive intrinsic ($p<.003$) experiential expectations in the object-based museum (Table 5.11). The Bonferroni test was used to confirm which age groups were significantly different. This study found that those respondents aged 55 years and over were significantly different than those aged 18-34 years old ($p<.004$ and $p<.009$) and those aged 35 –54 years old ($p<.004$ and $p<.004$) in terms of expected reflective instrumental and projective absorption experiences, respectively. Further, Bonferroni post-hoc tests highlighted that those aged 55 years and over were significantly different from 18-34 year old in terms of positive intrinsic experience expectations ($p=.01$) . Together, these findings seemingly confirm that as individuals become older they have more personal capital to understand what they view in museums and as such have the necessary 'experiential resources' (Hirschman 1985) in terms of 'personal capital' to engage in projective fantasy creation, reflective thoughts and spatially constrained intrinsic enjoyment.

Table 5.11: Effect of Age on Expected Experiential Domains

	Age	*Mean*	F value (df) significance
Reflective Instrumental Expectations Object-Based Museum	18-34 years (n=56) 35-54 years (n=95) 55 plus year (n=49)	*.000* *.179* *1.90*	6.745 (2) .001
Projective Absorption Expectations Object-Based Museum	18-34 years (n=56) 35-54 years (n=95) 55 plus year (n=49)	*.911* *.874* *2.51*	6.625 (2) .002
Positive Intrinsic Expectations Object-Based Museum	18-34 years (n=56) 35-54 years (n=95) 55 plus year (n=49)	*.41* *1.23* *2.45*	5.868 (2) .003
Psychomotor Mindful Setting Expectation Idea-Based Museum	18-34 years (n=61) 35-54 years (n=83) 55 plus year (n=56)	*5.79* *5.42* *2.36*	14.385 (2) .000
Dysfunctional Setting Expectations Object-Based Museum	18-34 years (n=56) 35-54 years (n=95) 55 plus year (n=49)	*-1.43* *-3.28* *-4.31*	7.341 (2) .001

If the above conclusions are true and older individuals are using their personal memories or experiences to facilitate these types of museum experiences, it seems likely that a form of 'true' nostalgia' (Holak and Havlena 1992) is facilitated in the object-based social history museum for older individuals. True nostalgia has been defined as a positive feeling towards the past based on an individual's experiences and memories (Davis 1979) and differs from 'simple nostalgia' (Davis 1979), or a general positive feeling for earlier time. Museums have been criticised for facilitating 'simple' nostalgia and presenting idealised pasts, which, it has been argued, prevents people from connecting with their own or the authentic pasts of others which they seek (Lowenthal 1985, Hewison 1987, Walsh 1992). This debate is strongly linked to the disneyfication arguments that surround immersive style exhibition design.

In the idea-based museum sub-sample, no differences between age groups were observed for positive intrinsic, reflective or projective absorption experiences, suggesting that the idea-

based museum style mediates age differences observed in the object-based museum (see Table 5.9). These findings highlight the potential of the idea-based museum to overcome the personal capital deficiencies of younger individuals. Further, this study can offer some confirmation that in terms of personal capital, The New Museology, as represented by the idea-based museum in the current study, is successful in positioning as 'egalitarian museum'.

Qualitative interviews, at stage one of the research design found some evidence to suggest that older individuals found high-technology orientated exhibits, which were strongly associated with The New Museology, to be alien and sometimes threatening. Recently Prentice et al (1998b) suggested a 'backlash' effect against The New Museology and showed that this was age contingent when measured in terms of visitors' reactions to film exhibits at a Scottish museum. In terms of psychomotor-mindfulness and the ability to interact with exhibits, the present study similarly found highly significant differences between respondents of different age groups in the idea-based museum ($p<.000$, Table 5.11). On average respondents who were 55 years old or over were less likely to expect to use computers, touch objects and use models, compared to younger respondents aged 18-34 and 35-54 years old. Bonferroni tests confirmed that respondents aged 55 years and over were significantly different from those respondents aged 18-34 years old ($p<.000$) and 35-54 years old ($p<.000$). As such, older visitors appear to be less attentive and mindful to the interactive interpretative provision in the idea-based museum, suggesting an age related 'backlash' or alienation effect to the interpretive provision of The New Museology.

Further evidence of the impact of personal capital and perhaps museum visiting experience is noted in the affect of age on dysfunctional setting expectations, including *'feeling unsure of how to look at the objects'*, *'feel uncomfortable'* or *'finding it tedious'* ($p<.001$, see Table 5.11). On average older respondents thought it was less likely that they would experience dysfunctional setting attributes than younger individuals aged 18-34 years old. Bonferroni tests confirmed that those respondents aged over 55 years and those respondents aged 35-54

years were significantly different from respondents aged 18-34 years old in terms of their dysfunctional setting expectations ($p<.001$ and $p=.02$, respectively). In contrast, there were no age effects found for dysfunctional setting experiences in the idea-based museum, suggesting that the idea-based museum interpretative style is capable of mediating the dysfunctional setting experiences associated with museum visits by those aged 18-34 and 35-54 years old in the object-based museum.

5.4.1.3. Effects of education and social class on expected experiences reported by respondents

Evidence in the present study suggests that all experiential domains, except dysfunctional setting experiences, were affected by the educational attainment and/or the occupational social class of the individual, independent of museum attraction style (see Table 5.9). In particular, findings of the present study revealed that those more highly educated and professional individuals were less likely to perceive positive intrinsic, reflective instrumental and projective absorption experiential outcome opportunities, compared to individuals with less education qualifications or at a lower middleclass occupational social class (Table 5.12). These findings contrast to studies in museums (e.g. Merriman 1991, Hood 1983) and heritage attractions more generally (Prentice and Cunnell 1998, Prentice et al 1997, Thomas 1989), which have reported an educational and social class bias in the visitor populations interviewed, and have suggested these more highly educated visitors from higher social class groups may gain more from visiting museums than their less educated counterparts, presuming behaviour is reasoned, goal directed and under volitional control. A partial explanation for the current findings can be found in studies of visitors at industrial heritage sites. These studies have shown that individuals who were less formally educated and from manual backgrounds were disproportionately more likely to report experiences associated with the general lifestyle of the period presented, compared to those more formally educated individuals who were found to more readily attend to the technical and industrial contexts of the era (McIntosh 1997, Prentice et al 1992, Hull and Harvey

1989). It seems as such that respondents from lower occupational grades and with less formal education attend to fantasy emotive and sensorial stimuli presented in the museum

Table 5.12: Effect of Social Class and Education on Expected Experiential Domains

Expectation Domains	Social Class	*Mean*	F value (df) significance	Education	*Mean*	F value (df) significance
Positive-Intrinsic						
Idea-Based Museum						
	I (n=25)	*1.6400*	5.862 (4)	no higher ed (n=56)		
	II (n=75)	*3.6933*	.000	higher ed below degree (n=115)	*3.8929*	NS
	Iin (n=61)	*3.6885*		higher ed degree & above (n=29)	*3.4000*	
Object-Based Museum	Student (n=14)	*3.5000*			*2.8966*	
	Other (n=25)	*4.0400*				
	I (n=35)	*.1429*		no higher ed (n=47)	*2.6383*	7.862 (2)
	II (n=76)	*1.0263*	5.439 (4)	higher Ed below degree (n=104)	*1.2115*	.001
	Iin (n=51)	*2.3922*	.000	higher Ed degree & above (n=49)	*.2041*	
	Student (n=17)	*-.1765*				
	Other (n=21)	*2.7619*				
Reflective Instrumental						
Idea-Based Museum						
	I (n=25)	*.9600*		no higher ed (n=56)	*3.3571*	
	II (n=75)	*1.9867*	3.697 (4)	higher ed below degree (n=115)	*1.6087*	9.586 (2)
	IIIn (n=61)	*2.5574*	.006	higher ed degree & above (n=29)	*1.5862*	.000
Object-Based Museum	Student (n=14)	*.7857*				
	Other (n=25)	*3.1600*				
	I (n=35)			no higher ed (n=47)	*2.2979*	12.583 (2)
	II (n=76)	*-.7429*	5.425 (4)	higher Ed below degree (n=104)	*.2596*	.000
	IIIn (n=51)	*.3816*	. 000	higher Ed degree & above (n=49)	*-.5102*	
	Student (n=17)	*1.588*				
	Other (n=21)	*-.8235*				
		1.904				
Projective Absorption						
Idea-Based Museum						
	I (n=25)	*2.1600*	2.594 (4)	no higher ed (n=56)	*3.6607*	3.068 (2)
	II (n=75)	*3.3333*	.04	higher ed below degree (n=115)	*3.0261*	.05
	IIIn (n=61)	*3.0820*		higher ed degree & above (n=29)	*2.3793*	
Object-Based Museum	Student (n=14)	*2.2143*				
	Other (n=25)	*3.9600*				
				no higher ed (n=47)		7.090
	I (n=35)		3.540 (4)	higher Ed below degree (n=104)		(2)
	II (n=76)		.008	higher Ed degree & above (n=49)	*2.2766*	.001
	IIIn (n=51)				*1.3462*	
	Student (n=17)	*.0571*			*.2041*	
	Other (n=21)	*1.1842*				
		2.0874				
		.8235				
		2.1429				
Psychomotor Mindful Setting						
Object-Based Museum	I (n=35)			no higher ed (n=47)	*.7872*	5.932 (2)
	II (n=76)	*-2.6857*	2.421 (4)	higher Ed below degree (n=104)	*-1.0481*	.003
	IIIn (n=51)	*-3.1974*	.05	higher Ed degree & above (n=49)	*-2.8367*	
	Student (n=17)	*-4.0980*				
	Other (n=21)	*-1.1765*				
		-1.7619				

while the more highly educated respondents in higher social class groups tend to be more habitual as opposed to reasoned. If this is the case, professional and educated respondents are likely to have underrated their expected experiential beliefs.

In the present study education and occupation were found to affect respondents' perceptions of positive intrinsic, reflective instrumental and projective absorption experiences in both museum settings at similar levels of magnitude (Table 5.12). Generally, these findings suggest The New Museology is not particularly effective among the middle classes in mediating the social class and educational effects, which have remained one of the central criticisms of the Old Museology paradigm. In addition, the present findings highlight that the white-collar visitor base of museum and heritage attractions is not homogeneous, and offers support for the distinction between professional and other non-manual workers which has been employed elsewhere (e.g. Prentice et al 1998b, Prentice 1997, Prentice 1993 a&b).

Studies have suggested that the opportunity to interact with exhibits is more likely to lead to learning and thoughtfulness in museum settings (e.g. Moscardo 1996, McManus 1992&1991). Findings in the present study identified that respondents' perceptions of the interpretative provision, in terms of using models, being able to touch real object and using computers, was affected by educational attainment (p=.003) and to a limited degree social class (p=.05) in the object-based museum (see Table 5.12). Interestingly, respondents with no higher educational qualifications were found on average to think it was likely that there would have an opportunity to interact with exhibits. In contrast, individuals educated to degree level or above thought on average that it was unlikely that there would be interactivity opportunities in the object-based museum (p=.003, Table 5.12)[26]. These findings suggest that among the middle classes respondents of a higher social class and with greater educational qualifications are more familiar with the style of interpretative provision offered in the object-based museum where interactivity, and in particular the use of high-tech media, are not common. Further, that respondents with less education and from lower social class occupations expect interactivity in the interpretative provision of the object-

[26] Bonferroni tests confirmed that these educational effects were the result of significant differences between respondents with no higher education and those with higher education below degree level (p=.05) or those with higher education above degree level (p=.001).

based museum suggests that these expectations are likely to be a major source of dissatisfaction with a museum visit.

In comparison, there was no evidence to suggest that education or social class differences in the sample affected psychomotor mindful interactivity expectations between individuals in the idea-based museum (Table 5.12). As such, the present study suggests the idea-based museum offers interactive experience opportunities equally to respondents from all educational backgrounds, and offers further support for the use of hands-on and high-tech media in The New Museology (Harrison 1993, Honan 1990).

5.4.1.4 The Effect of the Effect of Life-Cycle and the Presence of Children

Several studies have noted that the social context or group composition of museum visitors influences interaction with exhibits and the types of experiences gained (Brown 1995, Blud 1990a&b, McManus 1988a&b), and in particular, the child-orientated role associated with museum visits as a recreational pursuit has been noted (Beeho and Prentice 1997, Alt 1980). Together these studies seemingly suggests that museums are perceived as a vehicle for non-formal education for children. Although the present study did not measure expected group composition of visiting a museum, stage in family life-cycle and the presence of children in the household were used as a proxy measures to assess whether life-cycle and presence of children influenced the perceived experiential opportunities available in both the idea and object based museum.

Analysis of variance highlighted particularly strong life-cycle effects on intrinsic experiential and projective absorption outcomes in the object-based museum. Table 5.13 shows that respondents with dependent children, or those who had children who have left home were on average more likely to perceive positive intrinsic and projective absorption

opportunities in the object-based museum, than individuals who were single or did not have dependent children ($p<.003$ and $p=.008$, respectively). Bonferroni tests confirmed that in terms of expectations of intrinsic experiential opportunities, respondents whose children had left home were significantly different from respondents who were single ($p=.01$) and couples who had no children ($p=.05$) in terms of the positive intrinsic expectations, and significantly different from couples with no children in term of projective absorption expectations ($p<.004$).

Two likely 'causes' can be identified for these life-cycle effects. Firstly, it could be suggested that parents who have dependent children or who have children who have left home are likely to use or have used the museums as a vehicle for non-formal child education and general cultural socialisation. As such, these individuals may be more familiar with the object-based museum and more likely to gain and perceive positive intrinsic and projective absorption experiential opportunities. The impact of a respondent's familiarity and use of museums on experiential outcomes expected would offer support for the theory that increases in consumption lead to increases in marginal utility for cultural stimulation goods (Scitovsky 1978). However, the lack of significant statistical difference between respondents with dependent children and single people or couples with no children in Bonferroni post-hoc tests could not confirm this hypothesis.

A second cause for he noted lifecycle effect, and particularly the high level of perceived experiential opportunities reported by respondents whose children had left home, could be that there is an absence of children in the visiting party and as such respondents expect to enjoy the museum exhibition without concern for the care and instruction of others (Falk and Dierking 1992). However, this can at best be only accepted as a partial explanation for the above average expectations of positive intrinsic and projective absorption experiences anticipated by respondents whose children have left home because single people and couples with no children were found on average to be less likely to

Table 5.13: The Effect of Life cycle and Presence of Children on Expected Experiential Domains

Expectation Domains	Household Type		*Mean*	F value (df) significance
Positive-Intrinsic				
Idea-Based Museum	single	(n=46)	*3.1739*	11.789 (4)
	couple with no chidden	(n=25)	*2.880*	.04
	have children under 7 yrs	(n=35)	*3.8857*	
	have children 7 yrs and over	(n=43)	*4.1860*	
	have children who have left home	(n=51)	*3.1176*	
Object-Based Museum	single	(n=51)	*2745*	4.140 (4)
	couple with no chidden	(n=26)	*.1154*	.003
	have children under 7 yrs	(n=26)	*1.6538*	
	have children 7 yrs and over	(n=49)	*1.8980*	
	have children who have left home	(n=48)	*2.2290*	
Projective Absorption				
Object-Based Museum	single	(n=51)	*1.1176*	26.416 (4)
	couple with no chidden	(n=26)	*-.1538*	.008
	have children under 7 yrs	(n=26)	*1.7308*	
	have children 7 yrs and over	(n=49)	*1.0612*	
	have children who have left home	(n=48)	*2.2292*	
Reflective Instrumental				
Idea-Based Museum	single	(n=46)	*1.3261*	2.667 (4)
	couple with no chidden	(n=25)	*1.4800*	.001
	have children under 7 yrs	(n=35)	*1.9143*	
	have children 7 yrs and over	(n=43)	*2.7209*	
	have children who have left home	(n=51)	*2.6863*	
Object-Based Museum	single	(n=51)	*.0588*	2.768 (4)
	couple with no chidden	(n=26)	*-3.1154*	.03
	have children under 7 yrs	(n=26)	*-.6538*	
	have children 7 yrs and over	(n=49)	*.2245*	
	have children who have left home	(n=48)	*-.4167*	
Dysfunctional Setting				
Object-Based Museum	single	(n=51)	*.1304*	4.904 (4)
	couple with no chidden	(n=26)	*.0064*	.001
	have children under 7 yrs	(n=26)	*.0470*	
	have children 7 yrs and over	(n=49)	*.0066*	
	have children who have left home	(n=48)	*-.1743*	
Psychomotor Mindful Setting				
Idea-Based Museum	single	(n=46)	*4.0365*	5.603 (4)
	couple with no chidden	(n=25)	*5.6400*	.000
	have children under 7 yrs	(n=35)	*5.5429*	
	have children 7 yrs and over	(n=43)	*5.7674*	
	have children who have left home	(n=51)	*2.5098*	
Object-Based Museum	single	(n=51)	*-2.0392*	2.434 (4)
	couple with no chidden	(n=26)	*-3.1154*	.05
	have children under 7 yrs	(n=26)	*-.6538*	
	have children 7 yrs and over	(n=49)	*.2245*	
	have children who have left home	(n=48)	*-.4167*	

perceive positive intrinsic and projective absorption opportunities than respondents with dependent children (see Table 5.13).

As such, it seems likely that some effect of having visited museums with children in the past may be evident and 'cause' the above average expectations for intrinsic opportunities for individuals whose children have left home. Support for this can be found in the differences observed for respondents whose children have left home on perceptions of dysfunctional setting experiences (Table 5.13). Respondents whose children had left home were found to be below average in their expectations of dysfunctional setting experiences (p=.001), suggesting that through experience these visitors are competent in the museum environment.

Bonferroni tests highlighted that respondents whose children had left home were significantly different from single people (p=.000) in their dysfunctional setting experience. Single people on average were more likely to perceive dysfunctional setting experience opportunities (Table 5.13). However, these findings cannot be seen as purely related to life-cycle and the presence of children and may in fact be indirect age effects which have been noted elsewhere for attentiveness in museum environments (Prentice et al 1997b, Light 1995). Table 5.9 shows that the strength of group differences observed for life-cycle and age on positive intrinsic and projective absorption expectations are equivalent in magnitude and as such only further research can establish which is the primary determinant.

In the idea-based museum a limited but significant influence for life cycle and the presence of children was found for positive intrinsic expectations (p=.04), while lifecycle was not found to significantly affect projective absorption expectations. This suggests that the 'immersive' environment of the idea-based museum seemingly transcends life-cycle differences noted in the object-based museum and is able to provide respondents at different stages in their life-cycle, and single people and couples with no children in particular, opportunities for intrinsic experiential and projective absorption activities.

Interestingly, the presence of child was found to influence perceptions of exhibition interactivity, particularly in the immersive idea-based environment (p=.000, Table 5.13). On average, respondents with dependent children were more likely to perceive interactivity opportunities, while respondents whose children have left home were on average less likely to perceive these opportunities (p=.000). Bonferroni tests confirmed that respondents with children who had left home were significantly different from respondents with dependent children under seven years old (p=.005), respondents with children over seven years old (p=.001), couples with no children (=.01) and single people (p=.03). This study offers support for findings elsewhere that the family groups interact more with museum exhibits than other types of visitors (Brown 1995, Blud 1990a&b, McManus 1988a&b).

In the object-based museum, analysis of variance found individuals at different stages in their lifecycle differed in a limited but significant extent in terms of their psychomotor-mindful interactivity expectations (p=.05, Table 5.13). This suggests that the object-based museum is not as effective in stimulating family interaction via interactivity opportunities, as was found for the idea-based museum above, or as has been found for hand-on exhibits more generally (Blud 1990 a&b, Stevenson and Bryden 1991, Goddard 1994, Busque 1991, Their and Linn 1976, Screven 1974). As such, changes in museum orientation towards the New Museology seemingly provides disproportional benefits to respondents with children, than for respondents at other stages in their life-cycle.

5.4.1.5. The Effect of Income and Residential Location on Perceived Museum Experiences

Elsewhere other studies have found high income levels distinguish museum and other heritage visitors from non-visitors (Duhaime et al 1995). In the present study no evidence was found for the effect of income on the magnitude of experience images of museums held by respondents (Table 5.8a; Table 5.8b). This is most likely due to the middle-class focus of the sample.

Similarly, although residential characteristics of respondents were found to affect performing art attendance (Andersen and Belk 1980) and museums in North America (Tian et al 1996), analysis of the perceived likelihood of experiential outcomes domains by residential location in the present study, found location did not affect patterns of perceived museum experience. These findings offer further confirmation for the similarity of the two spatial sub-samples noted in Chapter 2. Interestingly, Chapter 6 shows that the desirability value associated with museum experience opportunities was contingent on residential location. As such, this study suggests that although residential location does not explain differences in museum images held, it does explain the different value individuals attribute to those experiences.

Evidence from the present study found no evidence to suggest that respondents' family socialisation affects the experience opportunities respondents perceived in the idea and object-based museum, as measured by visits to museums as a child with their family, father's occupation at 10 years old, highest educational attainment of parents, interest in museum visiting of parents when the respondents was a child and interest of respondent as a child in museum visits (Table 5.9). More notable for it's affect on the range of principal experiential domains in the object-based museum was museum socialisation facilitated outside the family home in terms of number of visits with the school as a child (Table 5.9). Table 5.14 shows that the number of school visits to museums as a child has influenced respondents' perceptions of positive intrinsic, dysfunctional setting and psychomotor-mindful setting experiences, although particularly strong effects were noted for dysfunctional setting experiences. However, rather than greater museum socialisation through school visits resulting in a reduction of dysfunctional setting experiences which are associated with psychological and physical discomfort in the museum environment, the present study found the opposite effect ($p=.000$, see Table 5.14). Table 5.14 shows that although all respondents stated that dysfunctional setting experiences were unlikely, on average respondents who had been on school trips regularly as a child (2 or more times a year) were significantly less certain that dysfunctional setting experiences would not occur, than respondents who had never been or those who had been one a year of less. Bonferroni tests confirmed that respondents who went to museums regularly with the school, (twice a year or more), were significantly different in their

Table 5.14: Effect of School Museum Socialisation on Experiential Domains in the Object-Based Museum

Expectation Domains	Number of School Visits as a child	*Mean*	F value (df) significance
Dysfunctional Setting Object-Based Museum (n=200)	never (n=74) once a year or less (n=94) 2 or more times a year (n=32)	*-4.2027* *-2.8830* *-.6563*	9.250 (2) .000
Psychomotor-Mindful Object-Based Museum (n=200)	never (n=74) once a year or less (n=94) 2 or more times a year (n=32)	*-.5946* *-.6383* *-3.3438*	3.678 (2) .03
Positive Intrinsic Object-Based Museum (n=200)	never (n=74) once a year or less (n=94) 2 or more times a year (n=32)	*1.7027* *1.4149* *0.0313*	3.390 (2) .04

perceptions of dysfunctional setting experiences compared to respondents who had never visited with the school (p=.001) and those who had visited once a year or less (p=.02). These findings suggest that if educational trips are not properly facilitated their effects, rather than encouraging young people to feel an ownership or belonging to these public resources, actually create adverse reactions to future museum visits.

Further support for the above conclusions can be found in the influence of the number of school trips on positive intrinsic and psychomotor mindful expectations (p=.04 and p=.03 respectively, Table 5.14). In both cases respondents who had been to museum 2 or more times a year with the school as a child on average were significantly less certain than other respondents that dysfunctional setting experiences were unlikely in the object-based museum[29].

[29] Bonferroni tests confirmed that respondents who had never been with the school differed significantly from those who had been two or more times a year in both psychomotor mindfulness (p=.01) and intrinsic experiences (p=.03) expectations. Further, Bonferroni test revealed that respondents who had school trips once a year or less were significantly different from those who had been two or more times a year in terms of psychomotor-mindful expectations (p=.04).

In contrast to the object-based museum, the number of school trips was not found to affect experiential outcome domains in the idea-based museum. This suggests that the idea-based museum overcomes those adverse experiences felt by respondents in earlier life and provides further support for the distinctiveness of the two museum styles from the respondents' viewpoint.

5.4.3 Effect of Past Behaviour on Museum Experiential Expectations

The present study found some evidence to suggest that museum visiting behaviour affects dysfunctional setting, and to a lesser extent, positive intrinsic experiential domains expected in the object-based museum. Elsewhere past behaviour has been found to affect individual's intention to act (see Bagozzi and Kimmel 1995 for a review) despite strong propositions in expectancy value theory that claim past behaviour to be subsumed within valued-expectations (Ajzen and Fishbein 1980&1977). More recently in museum studies, Davies and Prentice (1995) borrowing from the work of Bagozzi and Warshaw (1990) distinguished between recency, or the last museum visit, and frequency, or the general pattern of museum visits over time.

Table 5.15 examines the effect of past museum behaviour in terms of frequency and recency on experiential domains in the object-based museum.

Table 5.15: Effect of Museum Past Behaviour on Experiential Domains in the Object-Based Museum

Expectation Domains	Past Behaviour Measure	*Mean*	F value (df) significance
Frequency			
Positive-Intrinsic Object-Based Museum (n=200)	never or < once every two yr . (n=44) once every one or two yr. (n=74) at least once a year (n=82)	*.1852* *1.4235* *1.5227*	3.879 (2) .02
Dysfunctional Setting Object-Based Museum (n=200)	never or < once every two yr . (n=44) once every one or two yr. (n=74) at least once a year (n=82)	*-.7778* *-2.6235* *-4.0715*	7.977 (2) .000
Recency			
Dysfunctional Setting Object-Based Museum (n=200)	never/in the last 4 years (n=123) over 6 mnths ago but in last 2 years (n=85) in the last 6 months (n=88)	*-1.7391* *-2.8837* *-4.0795*	6.770 (2) .001

Both the frequency and recency of past museum visits were found to influence perceptions of dysfunctional setting experiences in the object-based museum ($p<.000$ and $p=.01$ respectively). In particular, respondents who had visited museums frequently (once a year or more) on average thought it was less likely that they would experience dysfunctional setting experiences, than respondents who visited infrequently or who never visited ($p<.000$). Bonferroni tests confirmed that individuals who never visited or visited less than once every two years were significantly different from respondents who visited museum regularly once a year ($p<.000$) and respondents who visited once every two years ($p=.001$). As such, these findings suggest that respondents who visit infrequently are more likely to experience psychological and physical discomfort in the object-based museum, as their lack of reinforcement in museum skills does not allow their competence to grow. Similarly, Table 5.15 shows that in terms of recency, respondents who had been to a museum in the last 6 months thought on average that is was much less likely that they would experience dysfunctional setting experiences than respondents who had not been in the previous 6 month period ($p=.02$).

Interestingly, recency and frequency of museum visits were not found to influence perceptions of dysfunctional experiential outcomes in the idea-based museum, suggesting that The New Museology is successful in it aims to include both those individuals who are initiated into the museum world and those who are not.

Significant differences in group means were also noted in the object-based museum for the influence of frequency of museum visits on positive intrinsic expectations. Table 5.15 shows that individuals who never visited a museum or visited less than one every two years were on average much less likely to perceive positive intrinsic experience opportunities than individuals who visited once every two years or once a year or more ($p=.001$) . These findings seemingly suggests that museum behavior is goal-directed and reasoned and that expectancy value models are appropriate for modelling this behaviour; those individuals who visit more frequently perceive more positive intrinsic experience opportunities.

The importance of situation influences have been noted in consumer behaviour (Belk 1975) and it has been suggested that individuals may visit museums on holiday rather than as part of their at home recreational agenda (Prentice 1993a). The present study, however, found little evidence to suggest that the purpose of trip, as a situational context, had any influence on the experiential outcomes perceived in either the idea or object-based museum (Table 5.9). In particular, analysis of variance found that the different situational contexts of visits to the idea-based museum did not influence perceived experiential outcomes, while some limited affect was noted in the object-based museum.

Notable exceptions in the object-based museum were found for the use of the museum for visiting friends and relatives and as a resource for rainy days. Respondents who used the museum as a recreational resource when visiting family and relatives came to stay were on average more likely to hold projective absorption expectations (mean=1 .9487), when compared to those respondents who did not visit object-based museum with friends and (mean = 0.8607, p =.007). Further, respondents who reserved museum visits for something to do on a rainy day on average were less likely to perceive positive intrinsic and psychomotor mindful experience opportunities (mean =0.1892 and –3.1351 respectively) in the object based museum, compared to respondents who did not use the museum for something to do on a rainy day (mean = 1.554 and 0.5828, p =.02 and p=.008 respectively).

5.4.4 Effect of Museum Related Life-style on Museum Experiential Expectations

In addition to childhood museum socialisation, social class and education, it seems likely that museum visiting behaviour would be supported by other lifestyle activities (Merriman 1991, Andreason and Belk 1980). The present study sought to examine if museum-related past times influenced individuals' expectations of experiential opportunities in the idea and object-based museums.

Merriman (1991) found individuals from different social classes appropriated their history in different ways. The present study found no evidence to suggest that genealogical related pastimes influenced respondents perceptions of experiential outcomes in either the object or idea based museums (Table 5.9). This is likely to be largely attributable to the middle class

focus of the present study (Merriman 1991). However, some limited evidence was found in the present study to suggest that other museum related activities did impact on the experiential outcomes perceived in museums. In particular, on average respondents who had kept a collection of somekind perceived the object museum to be deficient in interactivity opportunities compared to respondents who had not kept a collection (p=.01). In contrast, respondents from the idea-based museum sub-sample who had kept a collection of somekind were on average more likely to perceive psychomotor interactivity opportunities, compared to those who had not kept a collection (p=.04). These findings suggest that respondents who have enjoyed collecting objects, and who may as such value a close relationship with object artefacts, are more discerning in their perception of the interactive opportunities available in each museum attraction style. In the present study, the object-based museum was not evaluated by respondents who enjoy collecting objects as providing tactile and interactivity opportunities, while the idea-based museum seems to offer disproportional interactivity benefits for those respondents who have kept a collection of objects. Anderson and Belk (1980) nearly two decades ago found leisure lifestyle to be a highly significant predictor of attendance at performing arts events. These findings suggest that further exploratory work is necessary to identify pertinent leisure life-style indicators in order to examine if leisure life-style influences museum experiential outcomes.

Overall, the above analysis suggests that socio-demographics, and in particular age, gender, social class and education are capable of partially explaining the images or perceptions held of museum experiential domains for two contrasting social history museums. However, as has been noted elsewhere socio-economic factors are more likely to affect museum (e.g. Prentice 1993a&b, Merriman 1991), tourism (e.g. Dunn-Ross and Iso-Ahola 1991) and other recreation

behaviour rather than the *quality of the service experience.* Experience quality has been found to be dependent on the individuals' cognitions and feelings about the experience undertaken (Otto and Ritchie 1996) or the value individuals attribute to the experiences perceived and gained. The value individuals attach to the experiences offered in the idea and object-museum will be explored in the following chapter (Chapter 6), however, there is little support to suggest that the socio-demographic characteristics are more able to explain museum values than museum images.

Summary and Conclusions

This Chapter has shown that middle-class respondents do not see all museums as the same, but instead are able to make strong and significant distinctions between different museum environments, as measured by the significant difference in reaction by middle-class Edinburgh residents to the experiential opportunities available in the idea and object-based museums. These findings provide empirical support for the noted heterogeneity in the supply of heritage attractions (Prentice 1993a) and role of 'place' (Stewart et al 1998, Prentice 1997b, Clarke and Schmidt 1995, Duhaime et al 1995, Falk and Dierking 1992), 'service environments' (Bitner 1992, Mehrabian and Russell 1976, Kotler 1974) and 'settings' (Manning 1986, Manfredo et al 1996, Burns et al 1994, Driver et al 1991) on the intensity and range of experiences gained by individuals in museum settings, and as a strategic management tool in experience-based management (e.g. Manfredo et al 1996) mediating the range and intensity of experiences. As expected, the idea-based museum, representing The New Museological orientation to museum design, was perceived as overwhelmingly superior to the object-based museum across a diverse range of expected experiential outcomes, and in particular for realising interactivity and

positive imaginal expectations and minimising dysfunctional setting expectations. The findings of the present chapter confirm that the two museum styles studied are distinct and may indeed, based on the large experiential differences noted and the differences in the museum collages associated with the number of objects presented and the level of interactivity promised, represent opposite end points on an interpretative continuum, as suggested by Dean (1994). Further, the present Chapter provides some initial confirmation that interpretative style could be a valid branding basis for museums, capable of attracting or repelling potential visitors, and that museum interpretation represent one of the dominant aspects of the product offered (Hetzel 1995a).

Using exploratory and principal components analyses, anticipated experiential opportunities were found to be complex and multi-dimensional in nature, consisting of five distinct experiential dimensions: namely, positive intrinsic experience, dysfunctional setting experience, reflective instrumental experiences, projective absorption experiences and psychomotor mindfulness experiential domains. These experiential domains were described in terms of characteristic, functional and imagery attributes (Lefkoff-Hagius 1993) to reflect their differing levels of abstraction within an individual's cognitive structure. The five experiential domains identified were found to be consistent with and to integrate the range of experience domains noted previously in museum and leisure studies (Tian et al 1996, Milan and Wourms 1991, Edwards et al 1990). Findings in this Chapter also revealed anticipated experience opportunities to be structurally equivalent, and to consist of the same five experiential domains, regardless of museum attraction type. Museum interpretative type was found, however, to affect the 'structural dynamics' of museum anticipated experiences, as measured by the differing relationships observed in the idea and object-based museum between experiential

domains and among individual observed experiences within experiential domains. Overall, the findings in the present Chapter confirm that the idea and object museum sub-samples should be treated independently, in further examination of museum visiting intentions and anticipated experiential outcomes, and more pertinently, that there is a valid distinction between the New and Old Museology in terms of the dynamic experience opportunities respondents expect to gain from these differing environments.

This chapter has also shown that , in contrast to those findings reported for museum resource facilitators and control and normative influences, an individual's personal context or socio-demographic characteristics interact, and may be seen as potential 'determinants', of the museum experiential images held by respondents, particularly for the object-based museum. In particular this Chapter has shown the effects of gender, age, occupational middle 'class-ness' and education on positive, imaginal and reflective experiential opportunities perceived by respondents. However, and more pertinently, the present Chapter has shown the mixed ability of the idea-based museum interpretative design in overcoming these differences in individual's personal contexts. In particular, the New Museology was found only to be successful in mediating age differences associated with positive, reflective and imaginal experience opportunities observed in the object-based museum. To a limited extent New Museology was also found to reduce the lifecycle and number of school visits effects on the experiences gained. Furthermore, the ability of the physical environment to realise the New Museological aim of an 'egalitarian' museum was noted for dysfunctional setting expectations, where the idea-based museum was found to include both those individuals who were initiated into the museum world, and had visited recently and frequently, as well as those who are not initiated into the museum fraternity, and who had not visited recently or frequently. Similarly, the idea-based

museum interpretative environment was found to overcome educational attainment related psychomotor-mindful as well as age-related imaginal and reflective differences in the population studied.

Interestingly, the present chapter also found that far from eliminating differences in the museum visitor and potential visitor base, the idea-based museum offered disproportional psychomotor-mindful activity gains to respondents who had dependent children, while older respondents, in contrast, were found be disadvantaged in the idea-based museum environment and less likely to perceived interactive mindful opportunities. Taken together, these findings show that even within the middle-classes The New Museology is moderately successful in its aims to democratise museum environments through the careful design of museum interpretative provision. However, findings in the present Chapter show that there is still room for improvement, although it is also recognised that some individual differences in anticipated museum experiences are enduring, for example the female disposition to experience imaginal right brain activities, and are unlikely to be altered by changes in the physical environment. Finally, the strong and significant differences in anticipated experiential opportunities associated with differences in respondent's socio-demographic, museum past behaviour and museum socialisation, provide initial support for the likely sufficiency of cognitive beliefs in explaining museum visiting intentions.

Introduction

Recent museum and other visitor studies have been characterised by their reliance on visitor perceptions of what the museum offers (e.g. Prentice 1994b, Moscardo 1992 & 1996) or what visitors consume during a visit (e.g. McIntosh 1998, Prentice et al 1998). By focusing on the incidence of experiences and thoughts gained at attractions alone, museum and heritage studies generally have neglected to account for the *value* or *desirability* visitors attach to these experiences and thoughts (Davies and Prentice 1995, McLean 1993, Hood 1981). As such, studies to date have equated attractions that score highly on experience attributes with being successful in satisfying their consumers. In contrast, it is generally accepted by social psychologists that individuals do not necessarily prefer goods and services that they perceive scoring high on an attribute. This is because the motivational element of personal importance, value or need of the attribute, mediates the impact of perceptions in an individual's evaluation of a museum or other product or service (Bagozzi 1988, Fishbein and Ajzen 1975). As such, for favourable preferences of museum products to be formed there need to be positive scores on characteristic museum attributes which at the same time are desirable (of value) to the individual. Visitor studies that have concentrated on perception alone, and have neglected valuation, are implicitly flawed and unlikely to be able to fully explain or account for consumption behaviour (Bagozzi 1988).

The neglect of values in museum and heritage studies highlights the only recent introduction of marketing thought into the field (McLean 1993). In marketing, the importance of value as a motivational aspect of behaviour is fundamental to the transactional concept of marketing as exchange; that is where two parties gives up something of value in exchange for something of greater value (Kotler 1996). However, transactional marketing has also recently been criticised for presuming that value is bound to product or service attributes, and for not understanding how consumers create value in the products and services they

consume (Tzokas and Saren 1997). From a relational marketing perspective, the importance of understanding how consumers create value, a focus on the consumer 'value chain', and the need for managers to design systems of activities within which consumers can create their own value, has been stressed (Wilkstrom 1996, Tzokas and Saren 1997, Deighton 1992).

In order to fill this empirical neglect of potential visitors' evaluation of museum experiences and to begin to understand the means by which museum consumers may be creating their own value, this chapter examines the value individuals perceive in the two socio-history museums studied. It also identifies how these values relate to general theoretical frameworks provided in a diverse range of literatures. This chapter also examines structural relationships among values measured, and in particular, examines whether the five dimensional model identified for the museum image[1] (chapter 5), can also explain the relationships among museum value measures and identify types of museum value. The chapter concludes with an assessment of the socio-demographic antecedents to museum value in order to determine the ability of these characteristics to explain differences between respondents in terms of the value they attach to museums; to identify more objective descriptors of museum visiting and non-visiting behaviour useful for product development and targeted promotions; and to provide an understanding of the socio-demographic variables that expectancy-value frameworks subsume within beliefs measures of attitudes (e.g.Fishbein and Ajzen 1975 & see Chapter 8). In addition, this chapter concludes that behavioural-based measures, including use-occasion of museum visits and group composition information, popular in museum and heritage studies, are crude descriptive statistics that understate the true recreational, emotional, and utilitarian significance of museum visits and presume that all individuals value museums in a similar ways.

[1] Museum image as measured by the subjective probability of realising experiential outcomes.

6.1 What is Value? An Overview of the Nature of Value

Holbrook (1994) defined the axiology of value as *"a relativistic preference experience"* (Holbrook 1994, p 27). He characterised value as a comparative, personal and situational heuristic (relativistic); representing an individual's favourable or unfavourable disposition (preference); involving subject-object interaction; and pertaining to the appreciation or usage of a product or service rather than its acquisition (experience). Value, however, is seen as distinct from needs. Needs are neutral, whereas value, as the motivational component of attitude, implies that someone is feeling this need. Value, as such, includes targets or objects or situations and refers to the interaction between objects and situations (Gnoth 1997).

In understanding what constitutes value, two broad types of meaning can be identified from literature in sociology, psychology, marketing, consumer behaviour and philosophy: value can be seen as the principal *'outcome'* of a consumption experience created by products and services (Holbrook 1994, Holbrook and Hirschman 1982); or value can be seen as an organising heuristic, a system, a set of rules, or a rational ordering used by individuals in forming preferences (Rokeack 1967, Taylor 1961, Pepper 1958, Holbrook 1994, Gnoth 1997), and in the common with the meaning associated with expectancy-value models[2] (Holbrook 1994). These two descriptions of value are not considered to be mutually exclusive (Holbrook 1994).

In this way expectancy-value attitude theory (Fishbein and Ajzen 1975) explicitly recognises that *experiential consequences* are not valued equally by individuals, and, as such, goes beyond most visitor studies and other heritage research which observe

[2] In terms of expectancy-value or multi-attribute attitude models, value has been conceived of as an organising heuristic (Holbrook 1997). Here value is seen as one of the standards used to evaluate an object or act (Fishbein and Ajzen 1975).

expectancy (likelihood) alone. Expectancy-value theory offers a means of basing expectancies likelihood (or subjective proababilities, measured in Chapter 5) on the hierarchy of value which an individual internalises. This is achieved by weighting respondents' observations or perceptions by the *value* of the experience to respondents. Observations regarding the experiences achieved or expected on museum visits as such become value-contingent.

6.1.1 Types of Value

Although little attention has been paid to values both in museum studies and more generally in marketing (Holbrook 1994), values are not expected to be unidimensional but to be multidimensional in nature (Holbrook 1994, Bagozzi 1988). For example, over a decade ago, Hood (1983) identified six types of leisure value (or leisure agenda), and found three of these, namely 'having a challenge of new experiences', 'having the opportunity to learn', and 'participating actively', to be present in the leisure agendas of art museum visitors. While Jansen-Verbeke and van Rekom (1996) identified three motive factors central to museum consumption as learning, enriching life and relaxation. In tourism, Prentice (1992) distinguished between effective (visiting) value and affective (emotional but non-visiting) value in popular consciousness towards treasured landscapes. The former may be equated with utility in economist's system of value. Gnoth (1997) similarly distinguished between cognitive outer (object)-directed value and emotional inner-directed (or drive) value, in terms of the substitutability of tourism products and the policy implications for product development and promotion. Gnoth (1997) also identified three generic types of values as the rules by which tourist behavioural processes are perceived to lead to satisfying outcomes: bio-values which include the need for food or shelter; socio-values which include the need of self-esteem by others; and pyschogenic or self-actualisation values which include the lifting of the real self to the level of the ideal self. These generic value types reflect elements of Maslovian need hierarchies; and in terms of museum consumption it was

suggested that the museum experience included socio-values and psychogenic values. Partial support for the likely appropriateness of Gnoth's Maslovian (1997) generic value types in understanding museum consumption can be found in the work of Hood (1993). Hood (1993) stressed the importance of feeling comfortable and at ease in leisure environments in order to be receptive to museum exhibitions. Similarly, Jansen-Verbeke and van Rekom (1996) focused on relaxation value, for which it is assumed comfort in the museum setting is a necessary condition. Indeed these basic comfort dimensions may correspond to the safety needs identified by Maslow.

6.1.2 A Brief Examination of Value in Museum Studies

Despite a general reliance on perceptions (both anticipated experiences and those gained whilst visiting heritage sites) in museum and heritage visitor studies, noted in the introduction of this Chapter, concern for the value placed on museum visits has a long antecedent. For example, in 1924 Murray (1932) derived an empirical 'value factor' from the length of stay in the museum divided by the nominal time needed to walk around the gallery without stopping. In addition, Prince (1990), nearly a decade ago, noted the absence of an effective component in visitor studies to assign a value to the understanding of the place, while Thomas (1989) stressed that it was only with reference to the value which museum experiences hold in individuals' lives that the success of management interpretative and other strategies could be judged. More recently, McLean (1993) has called for further understanding of visitors' and non-visitors' value of the museum experience, and Fitchett and Saren (1997) have highlighted that the value of the museum exhibitions must be consumer defined rather than curator defined. Yet, to date, only a handful of studies have examined the valuation of museums from the consumer perspective.

Powe and Willis (1996) examined both active (use and visiting) and passive (non-use and non-visiting) museum value using willingness to pay measures. The utility of this approach for exhibition design and market development is, however, limited in that value in their

study must be measurable in economic terms, and the willingness-to- pay measure does not identify the different types of museum value created and consumed by individuals. Further, many museums, particularly at the time of the present study in Edinburgh, did not charge admission, making willingness-to- pay an arbitrary value measure. Other studies have been more specific in the museum values identified and measured. Beyond those studies by Hood (1983) and Jansen-Verbeke and van Rekom (1996), which have already been discussed in this Chapter, Sealey (1987) identified five basic need values of heritage visitors as *'awareness'*, *'orientation'*, *'participation'*, *'skills'* and *'dialogue'*; and more recently Prince (1990) measured museum value along seven dimensions including *'education'*, *'entertainment'*, *'interest'*, *'protecting our heritage'*, *'good use of tax payers' money'*, *'boring places'*, *'only for children or intellectuals' and 'static and out of touch with today'* and found that older individuals, of higher social class groups and who visited more frequently, held disproportionately positive evaluations of museums. In addition, Prince found that respondents from lower occupational social class groups were more likely to get value out of museum visits when they were on holiday. However, the findings of Prince's (1990) study must be interpreted with caution, as he employed a crude additive model which did not take account of the independence or relationships between value measures, which affect the additive model he employed (Bagozzi 1985).

More notable examples of museum value studies include those that focus on the hedonic, imaginary and symbolic value of museums, although these studies have undertaken by academics and have not been incorporated into museum visitor studies more generally. More than a decade ago, Kelly (1987) identified the status signalling value of *'having been there'* attributable to a classless but not statusless post-industrial society, where traditional and new museum visitors were found to value museum visits differently. Kelly (1987) found this difference in the value placed on the museum visits to be a function of socialisation and present class status. More recently, Fitchett and Saren (1997) examined museum exhibitions firstly, in terms of traditional economic, material and utility value prevalent in marketing exchange theory, and found these notions of exchange to be absent or

problematic in the exhibition context. Secondly, Fitchett and Saren (1997) examined museum exhibitions in terms of the semiotic (sign) value (e.g. Baudrillard 1993, Debord 1977) individuals attached to objects. Two broad forms of semiotic (sign) value were identified for museum visitors. *Cultural* and *historical sign value* were found to be manifest in the value individuals placed on exhibits for the feelings of appreciation for craftsmanship, skills and abilities of ancient culture, the connections with and a sense of continuity with the past, as well as aesthetic appreciation these exhibitions provided. On the other hand, *material referent value* or *Dasein value* [3](after Heidegger 1962), was manifest in the visitors' desire to get close access to objects; the fact that objects signify to visitors that they were once useful; the positive relationship between the authenticity in the object and the visitors willingness to perceive scale models and stuffed animals as real; and the visitors use of the objects to construct stories and narratives about their own or another's past.

Value attributed to museums has also been examined in the functions visitors perceive museums to fulfil, although this understanding of museum value is general, and has not been more formally linked to anticipated or actual experiences realised at museum and heritage sites. For example, Prentice (1994b) found museums were considered as primarily an educational resource, with pleasure viewing being seen as a secondary-order function. Further, conservation roles for museums were found to be less frequently mentioned and were considered third order functions of museums. Prentice (1994b) found social class and age affected the functions individuals ascribed to museums. Respondents from the higher social classes were found to value the educational and informational functions of museums, while younger respondents were found to value the tourism and sightseeing functions of museums. Respondents from lower occupational social class groups, however, were found to be less specific in the functions they ascribed to museums. Prentice (1994b) also found museum functions were be affected by an '*enthusiasm factor*' [4]. However, the study by Prentice (1994b) lacks attention to the imaginative and emotional functions of museums; the

[3] Daesin value is a use-sign value

[4] The enthusiasm indicator was based on the Recency of visits to range of attractions

study seemingly relying on traditional curatorial definitions of museums as educational resources for collecting, preserving, exhibiting and documenting.

6.1.3 Holbrook's (1986) Typology of Value

Holbrook (1994) provided a comprehensive and exhaustive framework of value potentially useful to understand the value of consumption experiences, such as museum behavioural outcomes. He identified eight value types based on their differing positions on the three continuums of (1) extrinsic to intrinsic, (2) self to other orientated, and (3) active to reactive.

The extrinsic and intrinsic continuum distinguished between instrumental and ludic value: that is, between utilitarian value, which is a means to achieving some desired end, and hedonic value, which is an end in itself. These two different values have been found in shopping (Campbell 1997, Babin et al 1994); in consumer products and brands (Crowley et al 1992, Batra and Ahtola 1991, Lofman 1991); in consumption experiences (Laverie et al 1993); and in tourism activities (Gnoth 1997, Prentice 1992). As such, in understanding the value of products and services, including museum experience outcomes, it would be expected that utilitarian value would be primarily cognitive with emotions playing a secondary role, while hedonic value would be primarily emotional and contain emotion-laden cognitions such as imagination and dreaming (Hirschman 1985, Allen et al 1992). In the present study, hedonic value can be seen as *'feeling entertained'*, *'feeling a sense of discovery and surprise'* or *'imagining how your life would have been living in the past'* included on the quantitative schedule. In contrast utilitarian value in the present study is postulated to be captured by learning-based outcomes such as *'feeling more appreciative of life today'* and *'making me thinking about the priorities in my life'*.

Holbrook's second dimension reflects self to other orientated value. Self-orientated value is concerned with preferences based on self-interest and the impact of the experience on the person, while other-orientated value refers to preferences based on the impact of experiences

on other people, and can be seen as the individual's value of the experience for another person's sake. The majority of values identified to date for museum and leisure studies are self-orientated (Hood 1983, Jansen-Verbeke and van Rekom 1996). Only being with people or social interaction (Hood 1983) and enriching life (Jansen-Verbeke and van Rekom 1996) capture in part this other-orientated value in past studies. Similarly, in the present study, the majority of empirically defined values measured relate to self-orientated value, including learning, feeling imaginative involved, feeling refreshed and feeling entertained. For example, only *'feeling the visits enrich the lives of children', finding out something you can talk about later', 'finding it not so interesting yourself and more for children'* and *'worrying if there will be sufficient facilities'* are other-orientated values captured in the present study, and these were not found to be prominent experiential outcomes perceived in museums (see Chapter 5). Interestingly, these four other-orientated values can be grouped in terms of their active or reactive nature. *'Enriching children's' lives'* and *'finding things to talk about later'* are active in nature, being conscious and purposeful symbolic activities; while *'worrying about facilities'* and *'finding it not so interesting yourself but good for children'*, are reactive other-orientated values.

Holbrook's final dimension distinguishes between *active* and *re-active* value and refers to the extent to which individuals are manipulators of their own experience and what they see in museums, or the extent to which they passively react to what they see. Reactive values include aesthetic appreciation and assessments of excellence and quality in the consumption experience (Holbrook 1994). In the present study, reactive values are hypothesised to include *'feeling admiration for the craftsmanship and ingenuity', 'feeling totally absorbed', 'feeling bored quickly',* and *'feeling unsure of how to look at the objects'.* Active value, where the individual manipulates and is a co-producer in the experience can be seen to include, in the present study, the manipulation of events such as *'imagining what your life would have been like living in the past', 'imagining how and who used the objects'* and *'feeling a connection with the past',* as well as the physical manipulation of tangible objects such as *'touching real objects'* and *'using computers'.*

Overall, Holbrook's typology of values has been shown to be useful for developing our understanding of the value of museum visiting. As such, this framework will be employed and referred to in the analysis of the desirability value middle-class residents of Edinburgh placed on the forty-two museum experience outcomes measured in the quantitative schedule.

6.2 Value Attributed to Social-History Museums

In the present study, the value that individuals associated with visits to museum attractions was opertationalised on a uni-dimensional seven point continuum from *'extremely desirable'* to *'extremely undesirable'* to avoid semantic confusion when a *'good-bad'* continuum, traditionally used in motivational research (Fishbein and Ajzen 1975) is combined with positive and negative experiences (e.g. Bagozzi 1988).

6.2.1 Comparability of Museum Sub-Samples

Before a detailed examination of museum value was undertaken, the two museum sub-samples were compared. Significant differences in *desirability value* for the range of consumption experiences for any museum were not to be expected between the two museum sub-samples. This resulted from two factors. Firstly, respondents were not exposed to the two contrasting museum collages when asked about the *desirability value.* Secondly, systematic random sampling with an adequate sample size should have ensured that the museum sub-samples are equivalent. In fact, the two museum sub-samples were required to approximate each other if direct comparisons of the effects of museum style on perceived experiential opportunities, presented in Chapter 5, were valid.

Overall, Table 6.1 confirms the equivalence of the two museum sub-samples in terms of *desirability value* and highlights the validity of drawing direct comparisons between the two

Table 6.1: Comparison of Idea and Object Based Museums on Desirability of (Values Attached to) Museum Experience Opportunities

Experiences by Museum Type	*Extremely Undesirable*	*Quite Undesirable*	*Slightly Undesirable*	*Neither Desirable or Undesirable*	*Slightly Desirable*	*Quite Desirable*	*Extremely Desirable*	x^2 (df) significance *Cramer's V*
Active-Hedonic-Self Orientated Value								
Feel connection with the past Idea Museum % Object Museum %	.8	3.8	2.5	5.8	18.8	38.0	30.5	NS
Create images in your mind of how & who used objects Idea Museum % Object Museum %	1.0	2.8	4.8	7.3	23.5	41.0	20.0	NS
Think what your life would been like living in the past Idea Museum % Object Museum %	1.5	3.3	4.0	10.3	24.8	35.3	21.0	NS
Feel past is brought to life Idea Museum % Object Museum %	.5	3.3	3.3	6.5	15.3	39.3	32.0	NS
Feel totally absorbed Idea Museum % Object Museum %	.....	.....	(5.5) (1.5)	1.0 2.5	9.0 13.0	39.5 28.5	45.0 54.5	12.69 (4) .01 .18
Feel bored quickly Idea Museum % Object Museum %	33.0	25.5	13.0	11.5	11.0	(6.0)	.....	NS
Feel uneasy or uncomfortable Idea Museum % Object Museum %	24.8	26.8	19.3	14.8	8.0	(6.5)	.....	NS
Reminds you of unpleasant school trip Idea Museum % Object Museum %	1.0 2.0	2.5 1.0	4.5 2.0	39.0 58.0	19.0 15.0	26.5 17.0	7.5 5.0	17.41 (6) .008 .20
Reactive Hedonic Self-Orientated Value								
Feel admiration for craftsmanship & ingenuity Idea Museum % Object Museum %	.....	(2.3)	3.0	6.8	18.0	37.8	32.8	NS
See real objects Idea Museum % Object Museum %	.....	.....	(3.0)	9.0	16.3	36.5	35.3	NS
Sense of discovery & surprise Idea Museum % Object Museum %	.....	(4.3)	3.0	3.0	10.5	57.0	22.3	NS
Feel stirred emotionally Idea Museum % Object Museum %	1.0	3.3	2.5	9.0	21.3	41.0	22.0	NS
Have a good time with companions Idea Museum % Object Museum %	.....	(2.0)	2.8	8.8	13.5	40.3	32.8	NS
Come out feeling refreshed Idea Museum % Object Museum %	.....	(3.0)	1.3	9.8	22.0	38.3	25.8	NS

Idea Museum n = 200 Object Museum n = 200

Note: brackets indicate where values have been re-coded to ensure a valid chi-sq test
where no significant differences were found, percentages for the entire sample N=400 are given

Table 6.1 continued: Comparison of Idea and Object Based Museums on Desirability of (Values Attached to) Museum Experience Opportunities

Experiences by Museum Type	Extremely Undesirable	Quite Undesirable	Slightly Undesirable	Neither Desirable or Undesirable	Slightly Desirable	Quite Desirable	Extremely Desirable	x^2 (df) significance *Cramer's V*
Active Instrumental Self-Orientated Value								
Feel more appreciative of life lead today Idea Museum % Object Museum %	1.5	2.8	5.0	17.0	22.8	32.5	18.5	NS
Think about the priorities in your life Idea Museum % Object Museum %	.5 3.0	5.5 1.5	5.5 7.5	20.0 25.0	22.5 26.5	28.0 23.0	18.0 13.5	12.79 (6) .05 *.18*
See how changed & progressed Idea Museum % Object Museum %	.8	2.5	3.0	5.8	25.9	38.0	24.3	NS
Learn interesting things Idea Museum % Object Museum %	.....	.....	(3.5)	2.8	18.5	46.5	28.8	NS
Find exhibits stimulate interest in new things Idea Museum % Object Museum %	.....	(4.0) (.5)	3.5 3.0	4.0 8.0	17.5 30.0	42.0 40.5	29.0 18.0	19.97 (5) .001 *.22*
Feel entertained Idea Museum % Object Museum %	.....	(2.5)	1.0	6.5	19.5	46.0	24.5	NS
Use models Idea Museum % Object Museum %	2.8	2.8	4.3	8.3	14.3	35.0	32.8	NS
Use computers Idea Museum % Object Museum %	11.5 8.0	7.5 3.5	1.5 7.0	18.0 16.5	15.0 21.5	24.0 26.5	22.5 17.0	15.51 .02 *.20*
Touch real objects Idea Museum % Object Museum %	3.0	1.5	3.3	9.8	13.8	33.0	35.8	NS
Feel exhibits have your no relevance to your life Idea Museum % Object Museum %	21.0	37.8	22.5	14.3	1.8	(2.8)	.....	NS
Reactive Instrumental Self-Orientated value								
Find exhibition makes learn fun Idea Museum % Object Museum %	.....	(2.5)	2.0	8.3	18.5	39.0	29.8	NS
Feel satisfied you have done something worthwhile Idea Museum % Object Museum %	.....	(2.5)	4.3	6.5	18.5	41.0	27.3	NS
Feel visits enrich your life Idea Museum % Object Museum %	.....	(3.5)	2.0	8.3	26.0	35.5	24.8	NS
Feel exhibits are not explained well Idea Museum % Object Museum %	36.5 30.0	45.0 46.0	9.0 19.0	7.0 3.0	(2.5) (2.0)	.....	.....	11.75 (4) .02 *.17*
Do not see the significance of exhibiting these objects Idea Museum % Object Museum %	21.0 13.0	45.5 39.0	20.0 33.0	7.0 12.0	4.0 .5	(2.5) (2.5)	.....	.001 *.22*
Find it difficult to relate to because not in context Idea Museum % Object Museum %	18.3	43.8	24.5	9.5	2.0	0.8	1.3	NS
Feel exhibits are not interesting Idea Museum % Object Museum %	37.3	47.8	12.3	(2.8)	.....	.....	.....	NS
Feel there is too much information Idea Museum % Object Museum %	13.3	27.0	26.3	17.8	7.0	6.8	2.0	NS

Idea Museum n = 200 Object Museum n = 200

Note: brackets indicate where values have been re-coded to ensure a valid chi-sq test
where no significant differences were found, percentages for the entire sample N=400 are given

Table 6.1 continued: Comparison of Idea and Object Based Museums on Desirability of (Values Attached to) Museum Experience Opportunities

Experiences by Museum Type	Extremely Undesirable	Quite Undesirable	Slightly Undesirable	Neither Desirable or Undesirable	Slightly Desirable	Quite Desirable	Extremely Desirable	x^2 (df) significance *Cramer's V*
Reactive Instrumental Self-Orientated value (Continued.....)								
Feel there is too much reading to do Idea Museum % Object Museum %	15.3	30.5	19.5	21.8	4.8	6.8	1.5	**NS**
Feel not designed with ordinary visitors in mind Idea Museum % Object Museum %	24.5	35.3	19.5	16.5	(4.3)	.....	.....	**NS**
Feel cannot talk openly Idea Museum % Object Museum %	17.8	35.3	22.0	18.0	3.0	3.0	1.0	**NS**
Feel seen it all before Idea Museum % Object Museum %	28.0 15.0	42.0 42.0	18.0 28.0	9.0 12.0	(3.0) (3.0)	.....	.....	13.07 (4) .01 *.18*
Feel unsure of how to look at the objects Idea Museum % Object Museum %	7.8	16.3	24.8	27.5	12.0	(11.8)		**NS**
Find it tedious because too much to see Idea Museum % Object Museum %	15.0	19.3	19.5	24.0	10.3	11.5	.5	**NS**
Active Instrumental Other Orientated								
Find out things can talk about later Idea Museum % Object Museum %	....	(3.3)	3.0	7.8	22.8	42.3	21.0	**NS**
Feel visits enrich life of children Idea Museum % Object Museum %	.....	.....	.....	(19.0)	8.0	29.0	44.3	**NS**
Reactive Instrumental Other Orientated								
Worry there is not sufficient facilities such as lifts, ramps, toilets & cafes Idea Museum % Object Museum %	14.8	13.8	16.0	33.8	8.0	12.3	1.5	**NS**
Feel more for children, not so interesting for respondent Idea Museum % Object Museum %	2.5 1.5	3.5 6.0	7.0 3.5	18.0 16.5	12.5 22.5	40.0 28.5	16.5 21.5	15.17 (6) 02 *.19*

Idea Museum n = 200 Object Museum n = 200

Note: brackets indicate where values have been re-coded to ensure a valid chi-sq test
where no significant differences were found, percentages for the entire sample N=400 are given

museum sub-samples in terms of *subjective probability* measures (Chapter 5) and *value-contingent expectations* (Chapter 7). For the majority of experiences (78.6%) demanded of any museum no significant differences were identified using Chi-square contingency tests. Exceptions included *'finding the exhibits stimulate interest in new things'* (p=.001, Cramer's V = .22), *' not seeing the significance of exhibiting the object'* (p=.001, Cramer's V = .22), *'reminding me of unpleasant school trips'* (p=.008, Cramer's V=.20), *'feeling totally absorbed'* (p=.01, Cramer's V = .18), *'feeling you've seen it all before'* (p=.01, Cramer's V = .18), *'using computers'* (0=.02, Cramer's V = .20), *'feeling the exhibits are*

not explained well' (p=.02, Cramer's V = .17), *'feeling it is more for children and not so interesting for the respondent'* (p=.02, Cramer's V = .19), and *'thinking about the priorities in your life'* (p=.05, Cramer's V = .18). It can be seen, however, that where desirability value was found to be contingent on the museum sub-sample, these differences were relatively weak. For only three museum values were the observed differences relatively strong and above 0.20 in Cramer's V value[5]. Overall, as the two museum sub-samples were found to be primarily equivalent in terms of museum value, these findings suggests that direct comparisons of the effect of museum interpretive style on perceived experiences (Chapter 5) and value-contingent experiences (Chapter 7) are valid. Further, due to the comparability of museum sub-samples in terms of desirability, subsequent bivariate and uni-variate analysis will be conducted on the combined sample (N=400).

Table 6.1 shows that for all evaluations which were significantly different in the museum sub-samples, those respondents in the *idea-based museum* sub-sample were more extreme in their evaluations of the museum experience opportunities, compared to respondents in the object-based museum sub-sample. For *'thinking about the priorities in your life'*, *'using computers'* and *'stimulates your interest in new things'* respondents in the idea-museum sub-sample were both more negative and more positive in their evaluations. For example, 88.9% of those who rated *'stimulates your interest in new things'* as extremely or quite undesirable, and 53.8% of those rating *'stimulates your interest in new things'* as slightly undesirable, came from the idea-based museum sample[6]. For negative or unpleasant experiences, including *'feeling the exhibits are not explained well'*, *'not seeing the significance of exhibiting objects'* and *'feeling you've seen it all before'*, respondents in the *idea-based museum* were similarly extreme in the evaluations compared to respondents in the object-based museum. Although weak, these differences identified have the potential to

[5] Museum values which were different in the two museum sub-samples and which were reasonably strong, as measured by a Cramer's V value of above.20, included *'reminds me of unpleasant school trips'* (p=.008, Cramer's V=.20), *'find the exhibits stimulate interest in new things'* (p=.001, Cramer's V = .22), and *'do not see the significance of exhibiting the object'* (p=.001, Cramer's V = .22).

[6] In addition, 61.9% of those respondents rating *'stimulates your interest in new things'* as extremely desirable came from the idea-based museum sub-sample.

accentuate the ability of the idea-based museum to out perform the object-based museum for positive experiences[7]. On the other hand, these differences in desirability value identified between the two museum sub-samples will dampen the effects for negative experiences when value-contingent experiences are measured[8].

There are several possible reasons for the differences in desirability value observed between the two museum sub-samples. These include differences between the museum sub-samples in terms of leisure preferences, or socio-demographic characteristics, that may affect the desirability of museum experiences; random sampling error; or measurement error. Socio-demographic, preferred leisure pastimes attributes, museum visiting patterns and museum-related leisure past-times were examined to determine if there were any differences between the museum sub-samples which could help to explain the differences in museum value identified. In terms of socio-demographics, Chapter 2 established that only the middle-class index weakly distinguished individuals in each museum sub-sample *($p = .003$, Cramer's $V = .189$).* Similarly, no significant differences in desirability value were found between the two museum sub-samples in terms of the different types of museums visited in the previous 12 months, the number of museum visits in the previous 12 months, museum-related leisure pursuits, preferred leisure pastimes attributes[9], or the situational-use contexts for museum visits (e.g. as a day trip or something to do on a rainy day). As such, it seems fair to conclude that as few differences in respondents' socio-demographic characteristics, leisure likes and dislikes or behaviour could be found between the two museum sub samples, the differences observed for the museum sub-samples are perhaps due to random measurement error associated with using seven point scales.

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[7] Positive museum experiences that were affected in this way included *'finding the exhibits stimulate interest in new things'*, *'feeling totally absorbed'*, *'using computers'* and *'thinking about the priorities in your life'*.

[8] Negative museum experiences that were affected in this way included *' not seeing the significance of exhibiting the object'*, *'reminding me of unpleasant school trips'*, *'feeling you've seen it all before'*, *'feeling the exhibits are not explained well'*, and *'feeling it is more for children and not so interesting for the respondent'*.

[9] See question D3 of questionnaire in the Appendix. The question refers to those attributes important in the respondent's favorite leisure pastime. Potential attributes included competitiveness, being outdoors, being part of a club, release of energy, excitement, challenge, restfulness, getting away from it all, entertainment, emotionally moving, sociability and mentally stimulating.

6.2.2 Museum Experiences Are Not Equally Valued

By only measuring the *subjective probability* respondents associate with museum experiential outcomes or respondents reported experience whilst visiting a museum, most museum and other visitor studies have implicitly presumed museum experiences are valued equally by respondents. This is a false assumption. Table 6.1 shows that museum experiences varied in terms of the desirability value respondents attached to them. In general, as might be expected, it can be seen that positive or pleasant experiences were desirable and valued, while negative and unpleasant experiences were undesirable and not valued.

Taking the two museum sub-samples together, the most highly valued experiences, where a significant proportion of respondents rated them as extremely desirable (for positive and pleasant experiences) included *'feeling totally absorbed'* (59.8%), *'feeling visits enrich the life of children'* (44.3%), and *'touching real objects'* (35.8%), while extremely undesirable experiences included *'feeling bored quickly'* (33.0%).

The importance attached to enriching children's lives has been found elsewhere (e.g. Prince 1985, McIntosh 1997). In the present study, this was found to extend beyond those respondents with dependent children to include single people as well as respondents whose children had left home. This suggests a normative-reactive utilitarian, extrinsic and other-orientated value is associated with museums, within the middle-classes studied. However, although utilitarian extrinsic value has been noted as a dominant value for museum visits in other studies (e.g. McIntosh 1997, Prentice 1994b, Prince 1985), in the present study, intrinsic and active evaluations were more commonly represented among those experience opportunities which were highly valued. The importance of touching objects and feeling totally absorbed, for example, suggests that respondents generally value the opportunity to be active in constructing their museum consumption experiences. Similar findings have

been suggested elsewhere. For example, Prince (1985) found museums were criticised generally for 'a lack of activity', with respondents wanting museums to be 'more lively' and with 'more things to do'. Prince (1985), in particular, also found younger people (16-34 year olds) associated entertainment with the number of different types of media interpretation offered by museums. Clearly in the present sample, respondents are valuing the ability to interact with objects. Feeling totally absorbed is associated generally with flow (Csikszentmihalyi & Csikszentmihalyi 1988), and has been found in immersive museum experiences (Bitgood 1990) and collectors' consuming experiences (Smith 1995). Both flow and immersion are not passive or extrinsic states, but have been described as highly transdental and intrinsic (Hirschman 1985, Bitgood 1990). Overall, the present findings suggest that highly valued museum experiences are active, self-orientated and hedonic in value, with other-orientated instrumental value being reported to a lesser extent.

In contrast, the majority of those experiences that were moderately valued, with a disproportionate number of respondents citing them as *quite desirable* or *undesirable,* were found to be self-orientated, extrinsic and instrumental in nature, being a means to an end rather than an end in themselves (Holbrook 1994, Hirschman and Holbrook 1982). Quite desirable experiences included *'learning interesting things'* (46.5%), *'feeling entertained'* (46.0%), *'find the exhibits stimulate your interest in new things'* (41.3%), while quite undesirable experiences included *'feeling the exhibits are not interesting'* (47.8%),*'feeling the exhibits are not explained well'* (45.5%), *'finding it difficult to relate to the objects because they are not in context'* (43.8%), *'finding out things you can talk about later'* (42.3%), *'not seeing the significance of exhibiting the objects'* (42.3%), *'feel you've seen it all before'* (42.0%). Overall, the present findings show that moderately valued museum experiences were concentrated on interest and learning, and a critical assessment of the museum interpretative environment.

Interest and learning are instrumental experiences potentially used by respondents as a mechanism for increasing knowledge or understanding by remembering and comprehending

facts. Creating interest and learning require effort (or action) on the part of the individual and as such the evaluation of learning-based experiences can be seen as *active self-orientated instrumental value* (see Table 4.6). An assessment of the museum interpretative environment, on the other hand, can be seen as similar to Holbrook's (1994) notions of *'efficiency' or 'quality'* (Holbrook 1994). The present findings revealed that the museum interpretive environment, or media mix, was judged regarding its *'efficiency' or 'quality' (e.g. exhibits not explained well and cannot related to)*, to enable other museum experiences such as learning, imagining the past, or feeling refreshed to be realised. As such, assessment of the interpretive environment represents extrinsic (or instrumental) value in that the museum interpretative environment is not necessarily valued as an end in itself[10], but as a means to an end. Further, evaluation of the museum interpretative provision can be seen as a passive reaction (Holbrook et al1990), requiring no resource commitment from the respondent. As such, evaluation of the museum interpretative provision is seen as *reactive self-orientated instrumental* value (Table 6.1). Therefore, Table 6.1 shows that second order (or moderately valued museum experiences) were predominantly extrinsic, primarily reactive and self-orientated in nature.

To summarise, first-order museum evaluations, or those strongly valued museum experiences, were found to be predominantly intrinsic and active in orientation, with only a minority of instrumental other orientated values reaching the same level of desirability intensity. On the other hand, second order, or moderately valued museum experiences, were found to be predominantly instrumental in orientation, with only a minority of intrinsic active orientated values reported at this level of desirability. That active intrinsic values were dominant supports ideas in Relational marketing that stress the strategic need to understand and provide *'platforms'* for customers to create their own value, and the importance of a research agenda to establish the contents and dynamics of the *'consumer value chain'* (Tzokas and Saren 1997). However, the present findings contrast with those

[10] Whereas, for 'touching real objects' noted earlier, the museum interpretive provision is seen as an end or hedonic experience in its own right.

of Prentice (1994b), who found museums were considered as primarily an educational resource, with pleasure viewing being seen as a secondary order function. The divergence between the findings of Prentice (1994b) and the present study has several potential explanations. Firstly, this divergence may be due in part to the fact that Prentice (1994b) did not sample the hedonic domain (fantasies, feelings and fun or informal education) of museum functions, which most likely has resulted in specification error in this study. Alternatively (or in addition), these contrasting results may be due to the differences in the sampling bases of the two studies. Prentice (1994b) employed a convenience sample of the general population, while the present study examined white-collar occupational groups only. If this latter explanation were valid, it would suggest that the differences in the two studies are due to associations held by blue-collar occupational groups of museums as formal and educational. A third possible rationale for the difference in findings between the two studies is based on the way the data are aggregated in order to determine first and second order museum value functions.

In common with most museum and heritage studies, Prentice (1994b) pooled individuals who reported to any degree that the museum value functions measured were likely by aggregating all positive scale items. In the present study, a similar aggregation process was conducted. All those respondents who thought that a museum experience was somewhat desirable were pooled. Experiences where a significant majority (over 70%) of respondents indicated *some* strength of value included *'feeling totally absorbed'* (83.8%), *'feeling a sense of discovery and surprise'* (79.3%), *'feeling the exhibits are not explained well'* (78.8%), *'learning interesting things'* (75.3%), *'feeling the visits enrich children's lives'* (78.8%) and *'having a good time with companions'* (73.1%),*'feeling admiration for craftsmanship'* (70.6%), *'seeing real objects'* (71.3%), *'feeling the past is brought to life'* (71.3%) and *'feeling entertained'* (70.5%). This profile mirrors more closely the strong formal learning values attached to museums noted by Prentice (1994b), and which is consistent with the views of most curators and those adopting the scholarly view of

museums. The more imaginative and emotional experiences such as *'feeling stirred emotionally'* (63.0%), *'feeling the past is brought to life', 'creating images of those people'* (61.0%) *and 'imagining your life in the past'* (56.3%) were found to be highly desirable experiences, but, not being reported to the same degree as learning-based value, these active intrinsic evaluations of museum experience would be considered second order in magnitude. As such, it appears that previous studies have concluded that learning is the dominant value and hedonism a second order value associated with museums due, perhaps, to crude aggregation of respondents.

As might be expected, of those negative experiences examined it is interesting that past bad or unpleasant museum visits and potential lack of on site facilities did not deter a significant majority of respondents. Only 45.1% of respondents considered *'feeling it reminds you of an unpleasant school trip'* and 44.6% considering *'worrying about insufficient facilities'* as undesirable. Likewise, nearly a quarter of respondents seemed undeterred by *'not being sure of how to look at the objects'.* This is contrary to the implications of hierarchical need models, such as Maslow's Hierarchy of Needs (1954), which suggests that facilities (refreshment and toilets) and safety (comfort and security in surroundings) are prerequisites to the enjoyment of social or psychological pleasures.

6.3 Dimensionality in Museum Value

Experiential consumption is defined by it's multifaceted nature or lack of uni-dimensionality (Holbrook and Hirschman 1982, Hirschman and Holbrook 1982). For example, shopping value, as one example of experiential consumption, has been found to be two dimensional, representing the hedonic (or playful) and the instrumental (or utilitarian) value (e.g. Babin et al 1994). For museums and art galleries, Hood (1983), as mentioned earlier (section 6.1.1), identified six clusters of leisure attributes capable of distinguishing regular, occasional and non-visitors in terms of the value placed on them; and Jansen-

Verbeke and van Rekom (1996) identified three motivation factors central to museum consumption as learning, enriching life and relaxation.

The present study sought to examine the relationship among the different desirability value respondents attached to museum experiential outcomes (see Chapter 2). In fact, the present study sought to assess whether the five-dimensional CFA (confirmatory factor analysis) model identified in Chapter 5 for museum experiential images or anticipated experiential opportunities would also stand as an acceptable representation of museum value. Such analysis tests whether expectancy-value theory can be applied at the more aggregate level of museum latent dimensions by demonstrating their structural similarity. This has largely been presumed in applications of expectancy-value attitude models and, to the author's knowledge, has not been tested empirically. Although, as noted in Chapter 1, Bagozzi's (1984, 1988) conceptualisation of a 'disaggregated additive expectancy-value structure' implicitly tests for the structural similarity of the evaluation and belief components of the model. However, the computational requirements of this model have usually exceeded the capacity of PC programs, and as such the disaggregated-additive expectancy-value structure has not been empirically tested (Bagozzi 1988).

If the CFA model from Chapter 5 was found to represent the desirability data, this approach will serve as a data reduction tool to reduce the complexity of the desirability data for subsequent analysis. More pertinently, however, and as noted in Chapter 2 (section 2.3.2), this approach offers a means of approximating the two-stage data collection approach traditionally utilised in multi-attribute attitude model research, such as The Theory of Reasoned Action (TRA) and The Theory of Planned Behaviour (TOPB), as a means of identifying modal salient beliefs[11].

[11] As discussed in Chapter 2 (section 2.3.2), experiential attributes identified through principal component and confirmatory factor analyses can be considered modally salient in the sense that these experiential attributes explain the majority of the variance in the data set. In addition, this procedure was chosen as it offered the additional benefit that modality was not decided on a limited sample, but on a larger and more representative sample. As such, this procedure seems less likely to encounter specification error resulting from the premature exclusion of attributes from the initial qualitative elicitation interviews.

Figure 6.1 provides the graphical representation of the five dimensional confirmatory factor model. Multiple group analysis was employed to examine if the five dimensional CFA model could represent museum desirability value in both the idea and object-based museum sub-sample (see Chapter 4 for further discussion on the merits of multiple group analysis). In both the idea and object-based museums, the desirability value data were not found to have multivariate normal distributions (Mardia's coefficient = 56.761 CR = 21.896, p <. 000 in the idea-based museum; and Mardia's coefficient = 51.016 CR = 19.860, p<.000 in the object-based museum). As such, asymptomatic distribution free (ADF) estimation was employed in testing the five dimensional models in Figure 6.1.

The overall model fit for both the idea and object-based museums was acceptable (x^2= 119.90, df=88, p<.01, x^2/df= 1.36, GFI = .94, AGFI = .90, TLI = .91, CFI=.94, NFI = .81, RMSEA = .03), showing that the CFA model was able to describe the desirability data and that there were no significant structural differences between the two museums, when allowing for individual variances and factor loadings to vary. The Chi-square statistic was significant, although this was not unexpected considering the sample size employed [12].

Closer examination of the overall model fit showed that there were no 'offending estimates', and all error variables for both independent exogenous variances and dependent endogenous variables were positive and significant. Further, the internal structure of the model was satisfactory, with factor weightings ranging from .59 to .90 and individual reliabilities, for endogenous observed variables, generally above .5 (see Table 6.2). Table 6.2 shows that it

[12] As noted in Chapter 5, the Chi-square statistic is not enough to reject a model. This is because the Chi-square test is sensitive to large sample sizes, departures from normality and model complexity (Gerbing and Anderson 1992, Bagozzi and Yi 1988, Hair et al 1995). The present analysis on Figure 6.1 employed a large sample size (n=400) and desirability data did not have a multivariate normal distribution.

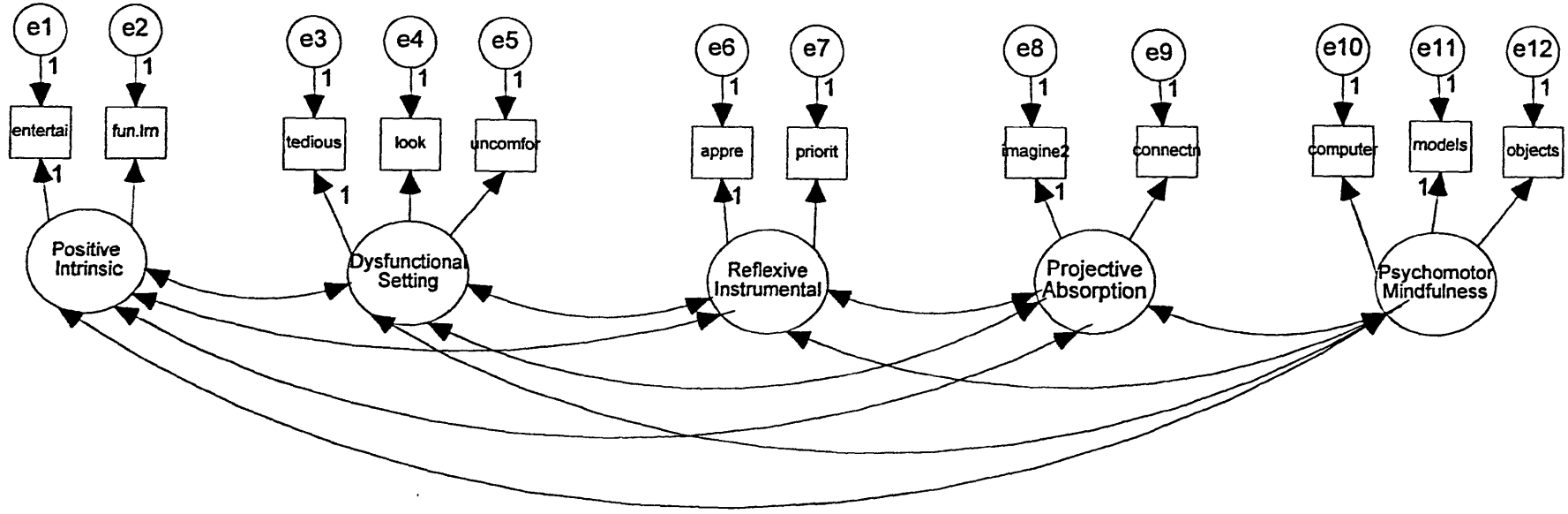

Figure 6.1: **Five Domain Model of Museum Desirability Value**

Table 6.2: Individual, Construct Reliability and Variance Extracted Measures for the Latent Dimensions in the Five Dimensional CFA Value Models.

	Factor Weighting	Individual Item Reliabilities	Composite Construct Reliability	Average Variance Extracted
Idea-Based Museum				
Positive Intrinsic Expectations				
Feel entertained	.69	.48	.74	.59
Find learning fun	.83	.69		
Dysfunctional Setting Expectations				
Find it tedious	.61	.37	.81	.51
Feel unsure of how to look at the objects	.87	.75		
Feel uneasy or uncomfortable	.80	.65		
Reflective Instrumental Benefits				
Feel more appreciative of life today	.83	.69	.80	.67
Think about the priorities in your life	.76	.58		
Projective Absorption				
Imagine what your life would have been like	.71	.51	.60	.43
Feel a connection with the past	.59	.35		
Psychomotor Mindful Interactivity				
Use computers	.67	.45	.72	.69
Use models	.90	.80		
Touch real objects	.90	.80		
Object-Based Museum				
Positive Intrinsic Expectations				
Feel entertained	.72	.52	.68	.52
Find learning fun	.72	.51		
Dysfunctional Setting Expectations				
Find it tedious	.82	.67	.85	.65
Feel unsure of how to look at the objects	.88	.78		
Feel uneasy or uncomfortable	.71	.50		
Reflective Instrumental Benefits				
Feel more appreciative of life today	.82	.67	.77	.66
Think about the priorities in your life	.76	.57		
Projective Absorption				
Imagine what your life would have been like	.71	.50	.65	.46
Feel a connection with the past	.65	.42		
Psychomotor Mindful Interactivity				
Use computers	.66	.44	.81	.59
Use models	.79	.62		
Touch real objects	.84	.70		

was only for *'feeling a connection with the past'* (.42) and *'using computers'* (.44), in the object-based museum, and *'finding it tedious'* (.37) and *'using computers'* (.45), in the idea-based museum sub-sample, that individual reliabilities were significantly below the required .5 level for non-exploratory studies. Further, the composite construct reliabilities and averaged variance extracted for each latent construct were acceptable, being either above or approaching the required .7 and .5 level respectively required for non-exploratory studies

(Hair et al 1995). The only notable exceptions were for *'projective absorption'* desirability values in both the idea and object-based museum samples. In terms of composite reliability, the projective absorption desirability value domain only met the lower bound criteria of .6 for composite reliability suggested by Bagozzi and Yi (1988). Further, for average variance extracted, projective absorption desirability value was below, but approaching, the minimum .5 criteria suggested (Bagozzi and Yi 1988, Hair et al 1995). Overall, the present analysis confirms that five dimensional latent variable desirability value model was internally consistent in its measurement and explained an acceptable level of the variance in the observed variables, when taking account of measurement error.

Discriminant Validity

In both museum sub-samples, the CFA models for desirability value were examined for latent constructs, which correlated highly at above .90. Table 6.3 demonstrates that none of the desirability value latent constructs were correlated at above .90, suggesting initial support for the discriminant validity of these dimensions (Bagozzi and Yi 1988, Hair et al 1995).

Table 6.3: Correlations between Pairs of Latent Desirability Value Constructs (Standard error)

	Positive Intrinsic	Dysfunctional Setting	Reflective Instrumental	Projective Absorption	Psychomotor Mindful
Idea Based Museum					
Positive Intrinsic	1.00				
Dysfunctional Setting	.19(.04)	1.00			
Reflective Instrumental	.70(.08)	.42(.08)	1.00		
Projective Absorption	.78(.08)	.17(.07)	.78(.11)	1.00	
Psychomotor Mindful	.57(.08)	.37(.08)	.34(.10)	.40(09)	1.00
Object Based Museum					
Positive Intrinsic	1.00				
Dysfunctional Setting	.20(.07)	1.00			
Reflective Instrumental	.61(.07)	.20(.10)	1.00		
Projective Absorption	.88(.08)	.05 (.10)	.79(.10)	1.00	
Psychomotor Mindful	.70 (.08)	-.08(.10)	.32(.12)	.48(.14)	1.00

Pairwise comparison tests[13] of the latent constructs are given in Table 6.4. Generally all chi-square differences were significant (there was a significant drop in x^2 from the restrained to the unconstrained model), indicating adequate discriminant validity between the dimensions. Only for the pairwise test between the reflective instrumental and projective absorption dimension was there a lack of significant difference between the two models (see Table 6.4). Further, as would be expected when desirability value had not been measured in an museum attraction specific context, failure of the pairwise chi-square test to establish discriminant validity for reflective instrumental and projective absorption dimension occurred in both museum sub-samples. As such, the present findings suggest that these two constructs may be perfectly correlated.

An examination of the correlation and associated standard error between *reflective instrumental* and *projective absorption* (see Table 6.3), however, revealed that the correlation was less than 1.00 by more than twice the standard error. This finding suggests that in both museum sub-samples there is adequate discriminant validity between the two dimensions, in that there is less than a 5% chance that the correlation observed between the constructs could include 1.0. However, only mixed support for discriminant validity was found when a third and final test of discriminant ability was applied. For the reflective instrumental dimension the average variance extracted (.69 and .67 in the idea and object-based museum sub-samples respectively) was greater than the correlation between the projective absorption and the reflective instrumental constructs (.79 and .78 in the idea and object-based museum sub-samples respectively), suggesting good discriminant validity. In contrast, for projective absorption the average variances extracted (.46 and .43) were lower

[13] Chi-square comparison tests represent a more formal test of discriminant validity than achieved by an examination of the interfactor correlation coefficients. The pairwise correlations between latent constructs were examined to determine if nested models, where the correlation between the two latent constructs in one model was restricted to 1.0, while in the second model the correlation was free or unconstrained, were significantly different (e.g. Selnes 1996, Bagozzi and Kimmel 1995).

Table 6.4: Assessment of Discriminant Validity: Chi-square difference tests between each pair of Desirability Value Latent constructs (Measurement Scales) for the Idea and Object-Based Museums

Latent Constructs	Constrained Model		Unconstrained Models			Difference Between Models	
	df	x^2	x^2	*P*	*GFI* *CFI*	x^2	*p*
Idea-Based Museum							
Positive Intrinsic & Dysfunctional setting	5	85.930	4.132	.40	.990 .998	81.798	p<.01
Positive Intrinsic & Reflective Instrumental	2	8.701	0.001	.975	1.00 1.00	8.700	p<.01
Positive Intrinsic & Projective Absorption	2	23.718	0.010	.92	1.00 1.00	23.708	p<.01
Positive Intrinsic & Psychomotor Mindful	6	33.155	5.398	.25	.976 .942	27.757	p<.01
Dysfunctional Setting & Reflective Instrumental	5	47.469	8.066	.09	.982 .959	39.403	p<.01
Dysfunctional Setting & Projective Absorption	5	50.154	4.421	.35	.988 .987	45.733	p<.01
Dysfunctional Setting & Psychomotor Mindfulness	10	55.055	16.073	.04	.966 .872	38.982	p<.01
Reflective Instrumental & Projective Absorption	2	2.939	1.159	.28	.994 .983	1.78	**p>.10**
Reflective Instrumental & Psychomotor Mindfulness	6	15.685	7.960	.09	.971 .898	7.725	p<.01
Projective Absorption & Psychomotor Mindfulness	6	46.918	6.630	.16	.972 .814	40.288	p<.01
Object-Based Museum							
Positive Intrinsic & Dysfunctional setting	5	182.645	2.362	.67	.997 1.00	180.283	p<.01
Positive Intrinsic & Reflective Instrumental	2	18.469	1.942	.16	.995 .992	16.527	p<.01
Positive Intrinsic & Projective Absorption	2	28.443	0.708	.14	1.00 1.00	27.735	p<.01
Positive Intrinsic & Psychomotor Mindful	5	40.502	7.924	.09	.980 .963	32.578	p<.01
Dysfunctional Setting & Reflective Instrumental	5	79.088	2.637	.62	.997 1.00	76.451	p<.01
Dysfunctional Setting & Projective Absorption	5	95.197	7.167	.13	.991 .984	88.030	p<.01
Dysfunctional Setting & Psychomotor Mindfulness	9	117.501	11.718	.16	.986 .970	105.782	p<.01
Reflective Instrumental & Projective Absorption	2	5.828	3.511	.06	.990 .978	2.317	**p>.05**
Reflective Instrumental & Psychomotor Mindfulness	5	16.598	5.325	.26	.989 .978	11.273	p<.01
Projective Absorption & Psychomotor Mindfulness	5	30.870	5.481	.24	.987 .962	25.389	p<.01

than the correlation between this construct and the reflective instrumental dimension, in both the idea and object-based museum sub-samples respectively. This suggests that future research should concentrate on improving the measurement quality of projective absorption

in order to improve the discriminant validity between projective absorption and reflective instrumental constructs.

On balance, the majority of evidence reviewed in assessing discriminant validity suggested that there was reasonable discriminant validity between the *projective absorption* and the *reflective instrumental* constructs. As such, the five dimensional CFA models of museum desirability value were judged, in both museum sub-samples, to have acceptable discriminant validity for an exploratory study.

6.3.2 Testing for Differences in the Five Dimensional CFA Constraint-Control Model in the Idea and Object-Based Museum Sub-Samples

Figure 6.1 confirmed that the five dimensional desirability value CFA structure was appropriate for both the idea and object based museums. This is not surprising when the museum sub-samples were not designed to differ, and were not found to differ significantly in terms of desirability value earlier in this Chapter (see Table 6.1). In Figure 6.1, the structural CFA model was assessed for its appropriateness across the two museum styles, while the factor loadings, variances in latent variables, variances in observed variables and interfactor correlations were allowed to vary in the different museum sub-samples.

As noted in Chapter 4, assessing whether the two museum sub-samples varied on any aspect of the five dimensional CFA model provided a more rigorous test of the equality (or difference between) of two museum sub-samples in terms of museum desirability value. As such, a sequential series of tests sought to assess firstly whether there were any differences between the two museum sub-samples in terms of the structural relationship between latent constructs and their observed variables and among latent constructs.

Secondly, the measurement models of both the manifest and latent variables were examined to assess if the two museum sub-samples varied.

Preliminary examination of the variance–covariance matrix in the two museum sub-samples provided initial support to suggest that they would not vary significantly on any aspect of the five dimensional CFA desirability models. The variance-covariance matrices for the manifest desirability values were found to equivalent, when they were constrained to be equal in the two samples (x^2=93.58. df=6, p=.02, x^2/df=1.40, GFI=.95, AGFI=.89, RMSEA=.03, TLI=.90, CFI=.94, NFI = .83). Bagozzi (1983) suggested that if the variance-covariance matrices are equivalent in two sub-groups of respondents while measurement error is taken into account, then there is enough evidence to suggest that the samples are homogeneous and can be pooled. However, the structural and measurement model of the five dimensional CFA desirability model were examined in detail in order to ensure that the effects of partitioning in the CFA model were fully accounted for and tested[14].

The series of sequential tests to assess the structural and measurement equivalence of the two museum sub-samples for desirability values provided support for the homogeneity of the samples. The factor loadings matrices for the five dimensional CFA models were found not to differ significantly in the two museum sub-samples (x^2/2=12.65, df/2 = 7, p>.05[15]). Constraining the interfactor correlation matrices to be equivalent in the two samples,

[14] In common with analyses undertaken in Chapters 4 and 5 sequential equality tests were conducted in the following manner: To examine whether there were any differences in the structural relations between latent variables and their manifest variables the factor loading matrix was constrained to be equal in both museum sub-samples. To examine if there was any difference among latent dimensions, the interfactor correlation matrix was constrained to be equivalent in each museum sub-sample. To assess the measurement model, the latent variable variances and the residual variances were constrained to be equal in each museum sub-sample. These tests respectively examined whether the measurement model of latent variables and observed variables were invariant across the two museum sub-samples.

[15] x^2/2= 132.55 - 119.90, df/2= 95 - 88

however, suggested that equivalence in terms of interfactor correlations should be marginally rejected ($x^2/2 = 21.58$, $df/2 = 10$, $p<.05$ but $p>.01$[16]), and highlighted that one or more of the correlations between the desirability value domains were not equivalent in the two museums. Examination of the results in Figure 6.1 suggested that the interfactor correlation between psychomotor-mindful-setting value and dysfunctional-setting-value differed significantly in the two museum sub-samples. In the idea-based museum the relationship between dysfunctional setting value and psychomotor mindful setting value was significant (CR = 4.230) and positive at .37. In the object-based museum, however, the corresponding relationship was not significant (CR=-1.023) and negative at -.08. The interfactor correlations between dysfunctional setting and psychomotor mindfulness setting value were allowed to vary in each museum sub-sample. The model was found to fit the data well ($x^2/2 = 5.35$, $df/2 = 9$, $p>.10$[17]). Further, sequential tests showed that the variance in desirability domains ($x^2/2=4.76$, $df/2 = 5$, $p>.10$[18]) and residual error variance ($x^2/2 = 18.2$, $df/2 = 12$, $p<.10$[19]) to be invariant across the two museum samples. As such, it was concluded that, with the exception of the correlation between dysfunctional and psychomotor mindfulness setting value, the idea and object-based sub-samples did not vary in terms of museum value. However, because of the multiple testing approach adopted in the present analysis, it could be argued that it is inappropriate to examine the hypothesis of museum sub-group invariance at the 5% level and that 1% would be a more appropriate level. For these reasons it was decided to accept the two museum sub-samples as equivalent. The results showed that, in terms of museum desirability value and for subsequent analysis in this chapter, the two museum sub-samples could be pooled.

To summarise the present analysis has shown that museum desirability value consists of five principal domains. These five value domains identified reflect the structure found for anticipated museum experiences (Chapter 5) and shows that the expectancy-value frameworks which have assumed evaluation and liklihood measures to be structurally similar

[16] $x^2/2= 154.13 - 132.55$, $df/2= 105- 95$
[17] $x^2/2= 137.90 - 132.55$, $df/2= 104 - 95$
[18] $x^2/2= 142.66 – 137.90$, $df/2= 109 - 104$
[19] $x^2/2= 160.86 - 142.66$, $df/2= 121 - 109$

are valid. Further, the five desirability domains were found to vary in terms of their extrinsic-intrinsic, active-passive and self-other orientation (Holbrook 1986), and the present analysis has confirmed that the two museum sub-samples were equivalent in desirability value, as would be expected from the research design adopted. The next section examines whether socio-demographic and leisure lifestyle differences in the middle-class sample studied can be seen as potential 'determinants' of museum desirability value as has been suggested in previous museum studies (e.g. Hood 1983, Prentice 1993a, Falk and Dierking 1992, Merriman 1991).

6.3 Socio-demographics, Socialisation, Museum Past Behaviour and Museum Related Pastimes as Potential 'Determinants' of Museum Desirability Value

The determinants of museum value for individuals have implications for further understanding the nature of the museum product and ways in which this product can be developed and promoted to maximise the value exchanged in market place relationships and to further democratise museum experiences. Museum and other heritage experiences have been found to be highly socially selective (Davies 1994, Prentice 1993a, Merriman 1991), suggesting that the general population is unlikely to be homogeneous in the value placed on museum experience opportunities. However, and pertinent for understanding museum value, Merriman (1991), for example, found that individuals from different social classes appropriated their heritage connections or 'experiences' through different mechanisms, with those from the lower classes preferring oral and highly peronalised heritage, compared to those in the higher social classes who are familiar and regularly used museums as a means of understanding theirs or another's pasts. Hood (1981), on the other hand, found socio-demographic characteristics were not useful proxy measures of the leisure values expressed by art gallery visitors and non-visitors.[20] In light of these studies, the present study sought to

[20] However, it must be remembered that the values measured by Hood were not specific to museums or art galleries.

understand the impact of socio-demographic differences in the population on the value attributed to museum experiences opportunities in social history museums.

Table 6.5 presents the extent to which the *desirability value* respondents attach to museum experiences is contingent on socio-demographics characteristics. Overall, Table 6.5 shows that there was little association between the five desirability domains and respondents' socio-

Table 6.5: The Effect of Respondent's Socio-Demographic Characteristics on Museum Desirability Value

	Dimension 1 Positive Intrinsic Experiences	Dimension 2 Dysfunctional Setting Experiences	Dimension 3 Reflective Instrumental	Dimension 4 Projective Absorption	Dimension 5 Psychomotor Mindful Setting Experiences
Respondent's Socio-demographics					
Gender	6.619 (1) .01	–	3.765 (1) .05	5.816 (1) .02	
Age	–	–		8.056 (2) .000	4.642 (2) .01
Education	–	–	2.952 (2) .05	–	–
Income	–	–	–	–	–
Social Class	–	–	–	–	–
Household		–	–	–	3.044 (4) .02
Location	5.958 (1) .02	–	6.729 (1) .01	10.722 (1) .001	3.780 (1) .05
Socialisation					
Parent's Education	–	–	–	3.210 (2) .04	–
Father's Occupation at 10yrs	–	–	–	–	–
Visits with family as a child	–	–	–	–	–
Visits with School as a child	–	–	–	–	–
Interest as a child	–	–	–	–	–
Interest of Parents as a child	–	–	–	–	–
Museum Past Behaviour					
Recency of last visit	–	–	–	–	–
Frequency of Visits	–	–	–	–	–
Museum Situational Behaviour					
Day trip	–	–	–	–	–
VFR	–	–	–	–	–
Holidays	–	–	–	–	–
New Exhibition	–	–	–	–	–
Re-visit	–	–	–	–	–
Rainy Day	–	–	–	–	–
Occupy Children	–	–	–	–	–
Museum Related Life-style					
Genealogy	–	–	–	–	–
Historical Re-enactments	–	–	–	–	–
Read historical non-fiction books	–	–	–	8.502 (1) .01	4.6698 (1) .03
Member of historical Organisation	–	–	–	–	–
Kept a Collection	–	–	–	–	–
Watch historical documentaries	–	–	–	–	–
Watch historical fiction	–	–	–	–	–
Studied history	–	–	–	–	–

Information given in each cell: F value
Degrees of freedom
Significance level

demographic characteristics. Gender and residential location were found to have a pervasive effect in terms of the number of desirability domains they could explain differences in the level of desirability value reported by respondents, while age was found to have a strong and significant effect on projective absorption experiences.

6.4.1 The Effect of Residential Location and Gender on Museum Experience Valuation

Only residential location and gender were found to have pervasive, yet relatively weak, effects over the range of museum evaluation domains derived in CFA. In particular, Table 6.6 shows that residential proximity to museums increased the value respondents attached to active hedonic experiences opportunities including projective absorption (p=.001), positive intrinsic experiences (p=.02) and psychomotor mindfulness (p=.05). Respondents who lived in Tollcross, an inner urban district, on average reported higher desirability rating for projective absorption, positive intrinsic and psychomotor-mindful experiences, than those respondents who live in NE Corstorphine, a suburban residential district. Some further positive residential proximity effects were noted for reflective instrumental (p=.01) values. Together these findings suggest that inner-urban and suburban respondents vary to some extent in the way they value museums. It was expected that this might reflect lifestyle, lifecycle or behavioural visiting differences in the sample population. Table 6.5, however, shows that on the present survey findings, this was not the case; no significant differences based on recency or frequency of visit, life-cycle, museum related life-style activities or museum situational use contexts, were reported for any of the museum value domains examined. As such it seems that proximity to museums may be acting as a surrogate lifestyle variable which extends beyond those museum related lifestyle-pastimes measured in the present study.

Compared to other socio-demographic characteristics usually employed in museum studies to disaggregate visitors[21], only gender was found to affect more than one experiential domain (see Table 6.5). Experiential and hedonic consumption it has been argued (Hirschman and

Table 6.6: The Effects of Residential Location and Gender Museum Evaluation Domains

		Mean	F value (df) significance
Residential Location			
Projective Absorption	N.E. Corstorphine (n=200) Tollcross (n=200)	*13.1550* *16.7250*	10.722 (1) .001
Positive Intrinsic	N.E. Corstorphine (n=200) Tollcross (n=200)	*14.7500* *17.3300*	5.958 (1) .02
Psychomotor Mindful	N.E. Corstorphine (n=200) Tollcross (n=200)	*17.3850* *20.8450*	3.780 (1) .05
Reflective Instrumental	N.E. Corstorphine (n=200) Tollcross (n=200)	*8.0450* *11.7450*	10.722 (1) .001
Gender			
Positive-Intrinsic Expectations	Males (n=171) Females (n=229)	*14.4678* *17.2140*	6.619 (1) .01
Projective Absorption Expectations	Males (n=171) Females (n=229	*13.4094* *16.0830*	5.816 (1) .02
Reflective Instrumental	Males (n=87) Females (n=113)	*9.1827* *11.2533*	3.765 (1) .05

Holbrook 1982), although not empirically substantiated, is dependent on gender, with women more able to enjoy fantasy imagination than men. The present study provides some limited support for these suggestions. Tables 6.6 shows that women were more extreme in their evaluation, and valued a broader range of the museum experiences than men. Women, on average, reported higher levels of positive intrinsic (p=.01), projective absorption (p=.02) and reflective instrumental (p=.05) desirability value, compared to men (see Table 6.6).

6.4.2 The Effect of Age on Projective Absorption and Psychomotor Mindful Evaluations

Although studies have generally reported that older visitors are less likely to visit museums (Merriman 1991, Goulding 1997) because of physical and disempowerment constraints, it is

[21] Studies have usually examined the gender, age, education and social class differences in the visitor base of museums (e.g. Prentice 1993a).

clear that older visitors are more able to interact with the exhibits they view. They have 'learnt to see' (O'Neill and Dufresne-Tasse 1997), and perhaps have more 'personal capital' or personal experiences of the objects they view, based on recollections of their youth or their grandparent's use of objects (Fitchett and Saren 1997). This idea is supported by findings elsewhere that personal experience, rather than vicarious or mediated experience of objects through books, television programs or adverts, is more likely to concretise the symbolic links between objects and the individual (Elliott 1998) and improve the predictive ability of attitudes (Fazio and Swinyard 1978). Further, McIntosh (1997) found that individuals over 60 years old were motivated to visit a themed heritage park to bring back memories, while Davis (1979) has argued that lived experience of using an object increases a person's personal identification with a nostalgic past. Others (Goulding 1997, Holak and Havelna 1992, Havelna and Holak 1991), however, have suggested that the objects do not have to be an authentic part of an individual's lived past, but rather familiar objects which create an illusion of reality which serve to foster personalised links and nostalgic experiences.

Table 6.7 shows that there was a positive relationship between the age of the respondent and the level of reported desirability value associated with projective absorption experience, which included *'feeling a connection with the past'* and *'imagining what your life would have been like living in the past'*. Bonferroni tests confirmed that respondents aged 55 years and over reported significantly higher levels of desirability value, compared to respondents aged 18-34 years old ($p<.000$) and those aged 35-55 years old ($p=.02$). These findings show that older respondents value the imaginative personal identification with object available in museum experiences. Elsewhere (Goulding 1997, McIntosh 1997) it has been found that imaginative personal identification experiences are likely to lead to the opportunity to socially recollect or discuss memories following the visit. The present study noted a positive relationship between age and *'finding out things you can talk about later'* ($F=4.787$, $p=.009$), and as such confirmed that this was likely to be the case.

Further, the present findings support the conclusion of Goulding (1997), who found that older people created a reality of personalised links with the past, despite a different or ambiguous

time in history being presented in the exhibition. In the present study no specific time period in history was specified in the museum collage, and as such it appears similar dynamics to those observed by Goulding were present in this study.

Table 6.7: Effect of Age on Projective Absorption and Psychomotor Mindful Museum Evaluation (N=400)

	Age		Mean	F value (df) significance
Projective Absorption				
	18-34 years	(n=117)	13.4262	8.056 (2)
	35-54 years	(n=178)	18.2651	.000
	55 plus year	(n=105)	21.5318	
Psychomotor Mindfulness				
	18-34 years	(n=117)	19.5299	4.642 (2)
	35-54 years	(n=178)	21.2922	
	55 plus year	(n=105)	14.7095	

The active pleasure of doing things (the opportunity to touch real objects and use models), which has been associated with play and intrinsic ludic value (Holbrook 1994), was also found to be contingent on age, to a limited extent. Older individuals, during qualitative interviews (at stage one of the present study), expressed anxiety associated with the new technology offered in the museum interpretative product (see Chapter 2). Table 6.4 confirms that older individuals on average reported lower levels of psychomotor mindful interactive desirability value, compared to younger individuals aged 18-34 years old or those aged 35-54 years old. Bonferroni tests confirmed that those aged over 55 years were significantly different in their evaluation of psychomotor interactive opportunities compared to respondents aged 35-54 years old.

In order to identify the specific nature of these differences in psychomotor mindful interactivity value, the impact of age on *'using computers'*, *'touching object'* and *'using models'* was examined. One way analysis of variance showed that *'using models'* and *'touching objects'* were unaffected by age (p=.198 and p=.194, respectively). However, the effect of age on the desirability attached to using computers was highly significant (F=17.194, p=.000), and Bonferroni tests confirmed that respondents aged over 55 years old were significantly different from respondents aged 35-54 years old (p<.000) and respondents

aged 18-34 years old (p<.000). These findings confirm that older individuals attached less desirability value to the hedonic pleasure of interacting with technology-based interpretative media provided in museum settings. In addition, the present study found, during qualitative interviews, that this lower desirability value was primarily associated with a fear or uncertainty regarding the respondents' abilities to use new technologies. Museum managers will need to design programmes to ensure that older individuals in the museum visiting population are not excluded as exhibitions become successively more complex and technology based in the interpretation they provide in their drive towards adopting The New Museological orientation.

6.4.3 The Effect of Life-Cycle and Presence of Children on Psychomotor Mindful Museum Value

In the present study the desirability value attributed to the five experiential domains were largely unaffected by lifecycle and the presence of dependent children in the household. An exception, as might have been anticipated from studies where the effects of hand-on exhibits to promote family interaction have been examined (e.g. Blud 1990 a&b, Stevenson and Bryden 1991), was noted for the impact of the presence of children on psychomotor mindful experience opportunities (p=.02, see Table 6.5).

Table 6.8: Effect of Household Type and The Presence of Children on Psychomotor Mindful Desirability (N=400)

		Mean	F value (df) significance
Psychomotor Mindful Desirability Value			
	single (n=97)	18.3196	3.044 (4)
	couple with no children (n=51)	21.2745	.02
	have children under 7 yrs (n=61)	21.1475	
	have children 7 yrs and over (n=92)	22.4891	
	have children who have left home (n=99)	14.3939	

Table 6.8 shows that respondents with dependent children of seven years old and over reported, on average, more desirability value for psychomotor mindful activities than any other life-cycle group. Learning theory states that active participation is more likely than passive activities to lead to information retention, and deep learning associated with

understanding. This finding perhaps suggests that parents in observing their children in museum environments gain an implicit understanding of learning theory and use museums for this resource (refer to section 6.2.2 where enriching children's lives was found to be a first-order value attributed to museum environments). This would imply that psychomotor mindful experiences may be more appropriately represented as intrinsic other orientated values (Holbrook 1994). However, any conclusions regarding the presence of children must be tentative; Bonferonni tests could only confirm that those respondents whose children had left home and those respondents who had dependent children aged seven years and over differed significantly in terms of desirability associated with psychomotor mindfulness ($p=.02$) . As such, it may be that the effects noted for life-cycle and the presence of children are spurious age effects.

6.4.5 The Effect of Social Class and Socialisation on Dysfunctional Setting, Projective Absorption and Reflective Instrumental Desirability Value

The social selectivity in museum and heritage attractions is well documented (e.g. Prentice 1993a, Merriman 1991, Bourdieu 1984, Hood 1983). Hood (1983), for example, found that museum curators and regular museum visitors who share the same socio-demographic profile, also share the same leisure agendas in the pursuit of specific leisure and recreation attributes. Further, Richards (1996) has suggested that the combined effects of a consumer orientation in heritage management and social selectivity in the visitor base of museum, is likely to mould the future production of museum forms. In light of these studies it was expected that social class related variables would affect the desirability values reported by respondents. It might be expected, for example, that those who are in higher occupational groups, who are more highly educated or who have been socialised as a child into museum visits should hold more cultural capital and as such feel at ease in the museum interpretative setting, being more confident and skilful in managing the interpretative setting. The present study, however, found no evidence to suggest that differences in current middle-class status, as measured by education or occupational class, or cultural socialisation, as measured by the education of parent's and father's occupational class, had any effect on the dysfunctional setting value reported by respondents (see Table 6.5). This suggests that the middle-class

respondents studied were equal in the value they place on 'efficient' (Holbrook 1994) museum exhibits, and do not find museum environments psychologically dysfunctional. However, further research is necessary to determine whether differing levels of competence (as conceptualised as self-efficacy in Chapter 4) in the museum environment have an interactive effect with the desirability value, which would suggest that low levels of dysfunctional setting attributes are 'dependent' on high levels of competence.

There was some limited evidence to suggest, however, that cultural socialisation and current middle-class disposition may affect a respondent's positive intrinsic and extrinsic desirability values. For example, Table 6.9 shows the effect of parent's education (used as a proxy for cultural socialisation in the present study) on the value respondents placed on the projective absorption experiences available in museum settings (p=.04, see Table 6.9). Table 6.9 shows that, on average, respondents whose parents did not proceed to higher education, or whose parents gained higher educational qualifications below degree level, reported higher levels of projective absorption desirability, than those respondents educated to degree level or above. This finding provides some limited support for the impact of socialisation on the hedonic intrinsic museum values held by respondents. Future research, based on a wider socio-demographic cross-section of the population is required to assess the full extent of the effects of socialisation on individuals hedonic-intrinsic museum values.

Table 6.9: Effect of Education on Reflective Instrumental Evaluation (N=400)

Desirability Value Domain		Mean	F value (df) significance
Educational Attainment of Respondent's Parents			
Projective Absorption	No higher education (n=213) Higher education below degree level (n=112) Higher education at degree level or above (n=46)	15.8122 14.8573 11.3043	3.120 (2) .04
Respondent's Educational Attainment			
Reflective Instrumental Evaluation	No higher education (n=103) Higher education below degree level (n=219) Higher education at degree level or above (n=78)	12.4078 9.9772 8.6538	2.952 (2) .05

Interestingly, the respondent's education was found to have a limited, but significant, affect on the desirability attached to the reflective thoughtful experiences opportunities available in

museums (p=.05). Table 6.9 shows that there is a negative relationship between the reported desirability of reflective instrumental experiences and the respondent's level of educational achievement. On average, respondents who had no higher educational qualifications reported higher levels of reflective instrumental desirability value, compared to those respondents with higher education. These findings suggest that individuals with less formal education disproportionately value the museum environment as stimulus for thought-provoking experiences when compared to those respondents with higher education. Further, these findings highlight that respondents with lower educational attainment place greater emphasis on the benefits that flow from a museum visit, compared to those individuals who have been educated to degree level or beyond. This may be because individuals with higher levels of education use other resources in addition to museum trips to achieve these enjoy thought-provoking heritage experiences. Overall, however, these thoughtful values, as measured in the present study, do not represent the nostalgic yearnings for an idealised past, as has been found elsewhere (Goulding 1997, McIntosh 1997), but appear to support Merriman's (1991) findings that museums were not used primarily as nostalgic resources, but as a means of understanding the present and looking into the future.

Overall, it is clear from the present findings that socio-demographic characteristics, including socialisation, museum socialisation, museum related leisure past times, past museum visiting behaviour and the situational use contexts of past museum visits, are not capable of explaining the present sample in terms of their differing emphasis on the five museum desirability domains. Following Bourdieu's (1984) notion of cultural capital and the similar ideas of a 'museum code' (Hood 1993, Falk and Dierking 1992), these findings are contrary to expectations. It was anticipated that, middle-class related variables, (including occupational grade, education, father's occupation and parent's educational attainment), and museum socialisation variables, (including frequency of visits as a child, interests of the respondent and parents, and past museum visiting experience), in particular, would highlight differences in museum desirability value held by the present sample. This would seem to suggest that the middle-classes are relatively homogenous in terms of the desirability value

they attach to museum experience opportunities. This conclusion seems unlikely and is not supported by the standard deviations found on five desirability domains shown in Table 6.10.

Table 6.10: Descriptive Statistics for Desirability Value Domains

	Positive Intrinsic	Dysfunctional Setting	Reflective Instrumental	Projective Absorption	Psychomotor Mindfulness
Standard Deviation	10.64	8.83	10.87	14.94	19.12
Mean	16.04	-4.37	10.35	11.04	17.85
Range	69.0	61.0	58.0	58.0	99.0

As such, it was concluded that factors beyond socialisation and museum related life-style characteristics, that is, factors which were not measured in the present study, are likely to account for the variances in desirability found in the present survey.

Summary and Conclusions

Using the axiology of value framework proposed by Holbrook (1994), this Chapter examined the desirability value indidividuals attach to museum experiential opportunities. Holbrook's typology of experiential values was found useful to distinguish between experiential opportunities desired for self or other, intrinsic or extrinsic and active or reactive reasons.

The Chapter concluded that highly valued, or first-order, museum experiences were active, self-orientated and hedonic, while second order (or moderately valued museum experience) were predominantly extrinsic, primarily reactive and self-orientated in nature. In contrast to previous research, those second order museum values identified in the present study included interest and learning experiences, which are usually cited as primary benefits of museum visiting by museum curators. Together the present findings, and in particular the importance of active self-orientated value, confirm those ideas in relational marketing which have stressed the strategic need to understand and provide platforms for customers to create their own value, and the importance of broadening a research agenda seeking to establish the

contents and dynamics of the 'consumer value chain' (Tzokas and Saren 1997) to museums and other heritage settings. In addition, the present findings offer support for studies in leisure sciences where a distinction has been made between experiential-process and instrumental means-end behavioural attributes in recreation and leisure activities (Ajzen and Driver 1991& 1992).

The present chapter found museum desirability value to be structurally consistent with anticipated museum experiences (Chapter 5) and to consist of five discrete dimensions, including the value associated with positive intrinsic, dysfunctional setting, projective absorption, reflective instrumental and psychomotor mindful experiences. This suggests the appropriateness of analysing expectancy-value (or the combinations of desirability and subjective probability) behavioural outcomes at a domain level (see Chapter 7), and supports the use of data reduction techniques on subjective probability to define the structure of museum anticipated experiences, and to replicate elicitation procedures adopted in studies adopting the expectancy-value framework.

Consistent with the research design employed in the present study, museum desirability value was confirmed as equivalent in the two museum sub-samples. Further, by demonstrating the equivalence of the two museum sub-samples in terms of desirability value, as well as in terms of socio-demographics (Chapter 2) and museum related leisure pastimes (Chapter 3), these findings show that the differences in anticipated museum experience opportunities found in the idea and object-based museum sub-samples are attributable to the different media mixes associated with their contrasting Museological orientations.

Interestingly, differences in the desirability value individuals associated with museum experience opportunities were found, to a limited extent, to be reflected in the individual's residential location, age and gender. In particular, females valued the opportunities for active self-rewarding and imaginative fantasy connection with a perceived authentic-past or personal projected or 'created' pasts; older individuals were found to have strong personal identification with what they viewed in museum exhibitions due to their higher levels of

personal capital and personal experience; and residential proximity was found to increase the value individuals attached to all experiential opportunity domains, except dysfunctional setting experiences.

However, and contrary to expectations, an individual's *'cultural capital'* (general cultural socialisation), *'leisure agendas'* (in terms of museum related leisure pastimes) and the presence of children were ineffective as 'concrete' proxy measures capable of discriminating between middle-class individuals in terms of the differences in the desirability they hold. As such, it is suggested that measures traditionally employed by museum managers for product development and targeted promotions are likely to be ineffective in discriminating middle-class individuals in terms of their desirability attachment to anticipated museum experiences. Further, the findings of the present Chapter suggest that if expectancy-value beliefs and attitudes are found to be sufficient in explaining behavioural intentions for middle-class individuals as would be expected in Theory of Planned Behaviour and Reasoned Action (and examined in Chapter 8), this sufficiency is not based on the desirability value component of expected-value attitudes to mediate differences in socio-demographic and other lifestyle differences in the population that have been traditionally associated with museum visiting and non-visiting behaviour. However, it seems likely that the low explanatory ability of education, social class, income, museum related past-times may be due to the middle-class focus of the study and further research on a broader socio-demographic cross section of the population may find these are powerful explanatory variables for differences in desirability value observed.

Chapter 7: Expectancy-Value, Attitude, Perceived Behavioural Control and Subjective Norms

Introduction

As reported in Chapter 3 to 6, museum and heritage studies have concentrated on the experiences realised by museum visitors (see Chapter 5), paid some limited attention to the perceptual and physical barriers held by museum non-visitors (see Chapters 4 and 5), and examined the incidence of museum visiting in the population (see chapter 3). These experiential attributes, resource constraints and social normative influences represent the cognitive belief-basis of museum visiting decision-making. Chapter 1 noted that, although there have been increasing calls for the introduction and utility of *experience-based management* for museum and heritage attractions, to date there has been no assessment of the ability of *experience-based* management to differentiate individuals in terms of their behavioural disposition to visit museums. That is, studies of museum visiting behaviour have not assessed the predictive ability of expectancy-value theory, which forms the basis of the 'experience-based' management approach that these studies have adopted. As such, previous studies have neglected to substantiate the utility of experience-based management for strategic market or product development in terms of its ability to explain why people do, or do not, visit museums and other heritage attractions. Furthermore, museum and heritage studies have failed to assess the relative contribution of normative influences and the problems of resource constraints, developed in Leisure Sciences and from the extensions of expectancy-value theory as applied in social psychology, to explain museum visiting behaviour. In contrast, the present Chapter and Chapter 8 aim to address these fundamental neglects.

The present Chapter and Chapter 8 are heavily linked and as such a review of their joint aims and relationship will provide useful direction to the reader. Overall, this Chapter and Chapter

8 will investigate the predictive and nomological[1] validity of expectancy-value theory for museum consumption. Further, in order to assess the relative contribution of normative influences and resource allocation problems, compared to the explanatory power of normative expectancy-value theory (and experienced-based management) in explaining museum visiting intentions, this Chapter and Chapter 8 will examine the utility of *Theory of Reasoned Action* (TRA) (Fishbein and Ajzen 1975) and the *Theory of Planned Behaviour* (TOPB) (Ajzen 1991) as extensions to expectancy-value theory useful for museum visitor and non-visitor management. In this way, the present Chapter and Chapter 8 will build on earlier Chapters (Chapter 4, 5 and 6) by incorporating the findings of these earlier Chapters as the belief-basis of decision-making in the models of TOPB and TRA, or the measurement models of the two-stage approach to structural equation modelling adopted in this study (see Chapter 2, section 2.3.2.2, sub-section (iv)).

The present Chapter, by assessing the extent to which museum intenders and non-intenders differ, undertakes a preliminary assessment of the likely ability of TOPB to predict museum visiting intentions, and clearly identifies where museum intenders and non-intenders differ in terms of the experiential costs and rewards, normative pressures, and control resources they perceive for museum visiting. Further, the present Chapter will concentrate on identifying and examining *direct* measures of attitudes (Aact), subjective norms (SN) and perceived behaviour control (PBC) found in the *Theory of Planned Behaviour* (see Chapter 1, Figure 1.1) to supplement the *indirect* or the belief-antecedents of attitudes (Chapter 5 and 6), subjective norms (Chapter 4) and perceived behavioural control (Chapter 4) identified earlier. Particular attention is given to distinction between experiential-process and instrumental means-end value in attitudes found elsewhere in leisure consumption (e.g. Ajzen and Driver

[1] Specifically, nomological validity is an assessment of the degree to which predictions or hypotheses regarding the relationships between constructs in a formal theoretical network are confirmed (Bagozzi 1981). Predictive validity, or criterion validity, on the other hand is narrower in scope, and is concerned with the degree to which one variable or construct is able to predict or can be predicted by another variable or construct (Churchill 1996)[1]. For example, the ability of expectancy-value experience domains to predict *Aact* represents an assessment of predictive validity, while an assessment of the appropriateness of TRA or TOPB as networks of variables related in a specified structure represent assessments of the nomological validity of these models for museum visiting intentions. Bagozzi (1981) has noted that the difference between predictive and nomological validity *"is one of degree and not kind"* (Bagozzi 1981, p327).

1991&1992). Together, the findings of the direct and indirect measures of Aact, SN and PBC complete the *measurement model*, and stage one, of the two-stage structural equation modelling approach adopted. In turn, these supportive measurement-model results form the basis for *structural* or *stage 2* analysis in Chapter 8. Here the 'full' nomological validity of *The Theory of Planned Behaviour* will be assessed, without the 'interpretational' or 'measurement' confounding effects (Bagozzi 1980, Anderson and Gerbing 1988) encountered when a two-stage approach is *not* adopted. In this way Chapter 8 will demonstrate the relative contribution of value-contingent expectations (Chapter 5 and 6), museum resource constraint and control (Chapter 4) and social normative influences (Chapter 4) in predicting museum consumption and determine the ability of TRA and TOPB to predict individuals intentions to visit idea and object-based museums.

Additionally, the present Chapter and Chapter 8 will review the methodological and conceptual problems associated with expectancy-value modelling, which were discussed in Chapter 1 (Section 1.2.2). To summarise, these will include the problems associated with the multiplicative assumption and the use of interval scales to measure the belief-basis of TOPB; the impact of measurement error on explained variance and an understanding of the relative contributions of Aact, SN and PBC in predicting intentions; problems associated with multi-collinearity, assumed uni-dimensionality in beliefs and other deficiencies resulting from the use of a summated index to model cognitive beliefs; the potential explanatory contributions offered by variables omitted from TOPB models (e.g. past experience); and a lack of acknowledgement of moderator (or interactive) effects in understanding the decision-making basis for museum visits.

7.1 Belief-Based Measures in TOPB

7.1.1 Difference between Intenders and Non-Intenders in terms of the Antecedents Beliefs Underpinning Attitude, Subjective Norms and Perceived Behavioural Control

Fundamentally both TRA and TOPB aim to explain differences between those individuals who intend, and visit, museums, and those who do not intend to visit, and do not visit museums. In order to identify substantive information about the cognitive foundations that underlie Aact, SN and PBC for museum visiting, and to provide an initial test of the applicability of TRA and TOPB to explain museum visiting behaviour, analyses were undertaken to determine if those who intend to visit the idea (n=125), or object (n=126), museums in the next twelve months differed from those who did not intend to visit either of these museums (n=69, n=66, for the idea and object-based museum sub-samples respectively) in terms of experiential, normative and control beliefs.

In common with procedures outlined by Fishbein and Sasson (1990), a series of MANOVAs (using Wilk's criterion) were undertaken to identify the multivariate effects of outcome beliefs (b*i*), desirability evaluations (e*i*), normative approval beliefs (sb*i*), motivation to comply with the wishes of social referents (mc*i*), and perceptions of control (cb*i*), identified in Chapters 4, 5 and 6 on museum visiting intentions. Consistent with earlier studies (e.g. Otway et al 1978), MANOVA analyses were conducted at the domain (latent dimension) for behavioural beliefs (b*i*), outcome evaluations (e*i*) and control belief (cb*i*) (see Table 1.1). However, as previous analyses, in Chapter 4, found subjective normative beliefs (sb*i* x mc*i*) were uni-dimensional, one ANOVA analysis was not solely conducted on the normative composite domain variable, but instead a MANOVA was undertaken to assess the multivariate effects of the four social referents, (children partner, friends and other relatives), on museum visiting intentions.

Table 7.1: Multivariate Differences between Individuals who Intend to Visit and Individuals who do not Intend to Visit a Museum in the next 12 months

Belief Domain Type	Idea-Based Museum *F Statistic (df)* *Significance level*	Object-Based Museum *F Statistic (df)* *Significance Level*
Likelihood Belief Domains (B*I*), *including positive intrinsic, dysfunctional setting, psychomotor mindfulness, projective absorption & reflective instrumental*	3.401 (5) p=.006	13.682 (5) p<.000
Desirability Value Domains (e*i*) *including positive intrinsic, dysfunctional setting, psychomotor mindfulness, projective absorption & reflective instrumental*	3.185 (5) p=.009	5.668 (5) p<.000
Social Normative Beliefs Domain(sn *i*) *Including approval of children, partner, other family and friends*	5.109 (4) p=.001	7.940 (4) p<.000
Motivation to Comply (mc *i*) *Including approval of children, partner, other family and friends*	1.440 (4) p=.337	1.527 (4) p=.126
Control Beliefs (cb*i*) *Including external time and planning, interpersonal situational & interpersonal awareness and knowledge*	1.139 (3) p=.335	9.519 (3) p<.000

Overall, the present study found perceived experiential opportunities (likelihood beliefs, b*i*), desirability value domains (e*i*) and approval beliefs (sn*i*) to differ significantly between those who intended and those who did not intend to visit the idea and object-based museum; while control beliefs (cb*i*) were only found to differentiate those who intended and those who did not intend to visit the object-based museum in the next 12 months (see Table 7.1). Table 7.1 reveals, however, that for both the idea and object-based museums, the motivation to comply with the wishes of social referents were not found to differentiate intenders and non-intenders, thereby questioning the appropriateness of the subjective normative component (SN) in TRA to explain museum visiting behaviour.

To obtain more specific information about the social, experiential, and control costs and benefits associated with museum visiting, univariate F tests were conducted to examine the relationship between individual belief domains and visiting intentions to both the idea (see Table 7.2) and object-based museums (see Table 7.3).

a) Differences Between Intenders and Non-Intenders in Terms of Belief Expectancies and Desirability Value

Overall Tables 7.2 and 7.3 confirm that, as would be expected from expectancy-value theory, all pleasant experiential domains (positive intrinsic, reflective instrumental, projective

absorption and psychomotor mindful) were evaluated positively, whilst the unpleasant-dysfunctional experience domain was evaluated negatively by both intenders and non-intenders. Further, intention to visit both museum attractions types increased with the level of certainty (or likelihood) individuals attached to pleasant experiential domains, while respondents who did not intend to visit perceived dysfunctional-setting experiences as more likely than those individuals who intended to visit in the next 12 months.

In terms of the ability of expectancy-value theory to differentiate between intenders and non-intenders, Table 7.2 and 7.3 show that the primary differences identified between intenders and non-intenders were associated with the perceived experiential outcomes (behavioural beliefs), while in the object-based museum the desirability value attached to these outcomes was also found to be a potentially significant causal factor in an individual's intention to visit.

ai) Differences Between Intenders and Non-Intenders in Terms of the Perceived Costs and Benefits of Museum Visit (behavioural beliefs)

Table 7.3 shows that in the object-based museum those who did not intend to visit perceived all experiential outcomes domains to some extent as unlikely. In contrast, those respondents who did intend to visit the object-based museum thought with some strength that positive intrinsic ($p<.000$), reflective instrumental ($p<.000$), and projective absorption experiences ($p<.000$) were likely to be realised in this interpretative setting. Interestingly, and consistent with the lack of emphasis on interactive opportunities in the Old Museology, psychomotor mindfulness opportunities were perceived by both intenders and non-intenders as unlikely to occur, suggesting that both see object-based museums as deficient in this respect.

In contrast to the object-based museum, both respondents who intended and respondents who did not intend to visit the idea-based museum thought with some certainty that they would realise pleasant museum experiences (positive intrinsic, projective absorption, psychomotor

Table 7.2: **Mean Behavioural Beliefs, Outcome Evaluations, Normative Beliefs, Motivations to Comply, and Control Beliefs for those who Intended and those who did not Intend to Visit an *Idea-Based* Museum in the next 12 months**

	Non-intenders (n=69)	Intenders (n=125)	Non-intenders (n=69)	Intenders (n=125)
Expectancy-Value	**Behavioural Beliefs** *(scaled –3 = extremely unlikely, +3 = extremely likely))*		**Outcome Evaluations** *(scaled –3 = extremely desirable, +3 = extremely desirable*	
Positive Intrinsic	2.86	3.83***	3.29	4.01*
Dysfunctional Setting	-4.52	-6.14**	-2.89	-2.27
Reflective Instrumental	1.71	2.39	2.13	2.66
Projective Absorption	2.48	3.47**	2.86	3.74**
Psychomotor Mindfulness	4.00	5.03	2.78	4.74**
Subjective Norm	**Normative Beliefs** *(scaled –3 = extremely unlikely to approve, +3 = extremely likely) to approve)*		**Motivation to Comply** *(original variables scaled 1 = extremely unconcerned, 7= extremely concerned)*	
Children	**1.34**	**2.18*****	2.14	2.88
Partner	**1.33**	**2.28*****	2.84	3.46
Other Family	**1.23**	**1.88*****	2.94	3.19
Friends	**1.19**	**1.82*****	2.70	2.98
Perceived Behavioural Control	**Control Beliefs** *(scaled –3= extremely likely to need, +3 = extremely unlikely to need)*			
Extrinsic Time and Planning	-1.33	-0.92		
Interpersonal Situational	2.06	3.10		
Intrapersonal Awareness & Knowledge	-0.51	0.18		

* p<.05 **p<.01 ***p< or = .001

Table 7.3: **Mean Behavioural Beliefs, Outcome Evaluations, Normative Beliefs, Motivations to Comply, and Control Beliefs for those who Intended and those who did not Intend to Visit an *Object-Based*-Museum in the next 12 months**

	Non-intenders (n=66)	Intenders (n=126)	Non-intenders (n=66)	Intenders (n=126)
Expectancy-Value	**Behavioural Beliefs** *(scaled –3 = extremely unlikely, +3 = extremely likely))*		**Outcome Evaluations** *(scaled –3 = extremely desirable, +3 = extremely desirable*	
Positive Intrinsic	-0.46	2.30***	2.77	3.38***
Dysfunctional Setting	-0.56	-4.43***	-3.56	-1.62***
Reflective Instrumental	-0.58	1.24***	1.57	2.60**
Projective Absorption	-0.06	2.03***	2.00	3.38***
Psychomotor Mindfulness	-1.67	-0.45	4.03	4.57
Subjective Norm	**Normative Beliefs** *(scaled –3 = extremely unlikely to approve, +3 = extremely likely) to approve)*		**Motivation to Comply** *(original variables scaled 1 = extremely unconcerned, 7= extremely concerned)*	
Children	**1.28**	**1.73**	1.97	2.87*
Partner	**0.95**	**1.91*****	2.80	3.45
Other Family	**0.98**	**1.46***	2.71	3.02
Friends	**0.53**	**1.47*****	2.83	3.11
Perceived Behavioural Control	**Control Beliefs** *(scaled –3= extremely likely to need, +3 = extremely unlikely to need)*			
Extrinsic Time and Planning	-1.42	-1.66		
Interpersonal Situational	0.38	3.46***		
Intrapersonal Awareness & Knowledge	-1.53	-0.38*		

* p<.05 **p<.01 ***p< or = .001

mindfulness and reflective instrumental). In particular, intenders and non-intenders to the idea-based museum agreed that to some extent all positive pleasant museum experiences were somewhat likely. On the other hand, and consistent with the findings for the object-based museum, both intenders and non-intenders to the idea-based museum thought with some degree of certainty that dysfunctional setting experiences were unlikely, suggesting that dysfunctional setting experiences may not act as a strong de-motivator in forming museum visiting intentions. However, recent findings that negative performance on an attribute has a greater impact on overall satisfaction and repurchase intentions than positive performance has on that same attribute (Mittal et al 1998), suggests that if the asymmetry extends to positive-pleasant and negative-unpleasant product (museum) performance, it is likely that the impact of dysfunctional setting experiences on visiting intentions, when all expectancy-value beliefs are considered, will be stronger than is suggested in Tables 7.2 and 7.3.

A comparison of Tables 7.2 and & 7.3 shows, as would be expected when New Museology is focused on cultural democracy, that there were fewer significant differences between those who intended to visit and those who did not intend to visit the idea-based museum, compared to the number of differences between intenders and non-intenders observed in the object-based museum. These findings suggest that The New Museology is partially successful in removing perceptual barriers of museum visiting associated with visiting the object-based museum. In particular, a comparison of Table 7.2 & 7.3 shows that the idea-based museum environment is successful in overcoming perceptual constraints associated with reflective-instrumental experiences. However, these findings also suggest that in predicting visiting intentions to the idea-based museum the contribution of behavioural beliefs to expectancy-value attitudes may result in attitude holding less of an explanatory role in understanding museum visiting behaviour than in the object-based museum.

aii) Differences Between Intenders and Non-Intenders in Terms of the Desirability Value Attached to Experiential Opportunities

In terms of the mean scores for desirability value reported in Tables 7.2 & 7.3, the present study found that generally intenders attached greater desirability value to pleasant experiential domains and were less critical of dysfunctional-setting experiences than non-intenders. However, strong and significant differences between intenders and non-intenders for desirability value were identified in the object-based museum, that were not found to the same extent in the idea-based museum, despite the two museum sub-samples being confirmed as identical in terms of desirability (see Chapter 6, section 6.2.1). In particular, Table 7.2.and 7.3 shows that there were strong and significant differences between intenders and non-intenders for positive-intrinsic ($p<.001$), projective absorption ($p<.001$), dysfunctional-setting ($p<.001$), and reflective-instrumental expected experiences ($p<.01$) in the object-based museum, while in the idea-based museum weaker but statistically significant differences were identified only for projective-absorption ($p<.01$), psychomotor mindfulness ($p<.01$) and positive-intrinsic ($p<.05$) experiences.

Partial explanation for the differences in the dynamics of desirability noted for the idea and object-based museums can found in the combined effects of the contrasting socio-demographic profiles found for intenders and non-intenders in the two museum sub-samples and the effect of gender on the desirability value reported by individuals reported in Chapter 6. In Chapter 6 the present study found that an individual's gender affected the desirability value he or she attached to reflective-instrumental ($p=.05$), projective-absorption ($p=.02$) and positive-intrinsic experiential outcomes ($p=.01$, see Table 6.6), with females reporting a higher desirability value associated with these outcomes compared to males. A comparison of the two museum samples in terms of the effect of gender on visiting intentions revealed that while gender did not affect the visiting intentions reported by individuals in the idea-based museum sub-sample, individuals with different visiting intentions were found to differ in terms of gender in the object-based museum sub-sample ($x^2=4.655$, $df=1$, $p=.03$). As such, the higher proportion of females reporting an intention to visit the object-based

museum (64.3%, compared to 35.7% male), coupled with the gender bias in desirability value reported in Chapter 6, provides a partial explanation for the significant differences in desirability attached to reflective-instrumental experiences by intenders and non-intenders to the object-based museum (p=.005), that were not found in the idea-based museum sub-sample. Similarly, an individual's gender also served to explain the stronger intender/non-intender differences noted in the object-based museum (Table 7.3) for the desirability-value associated with projective absorption (p<.000) and positive-intrinsic experiential outcomes (p<.001) compared to those intender/non-intender differences observed in the idea-based museum (p=.007 and p=.01 for projective-absorption and positive-intrinsic experiences respectively).

Socio-demographic differences between those who intend and those who do not intend to visit the idea or object-based museums could not, however, explain why *psychomotor mindfulness* was evaluated differently by intenders and non-intenders in the idea-based museum and not in the object-based museum. Further, there were no obvious explanations to account for the present finding that intenders and non-intenders to the idea-based museum did not differ in terms of dysfunctional-setting experiences, while intenders and non-intenders to the object-based museum were found to differ in this respect (p=.001).

Taken together, the present analyses observed greater intender/non-intender differences in terms of the *certainty* with which individuals held beliefs compared to the *desirability value* individuals attached to these experiences (see Table 7.2 &7.3). These findings suggest that the main differences between those who intend and those who do not intend to visit museums were associated with perceptual deterrents (museum image), which are more easily subject to managerial initiatives, rather than the desirability value associated with these experiential outcomes which, being associated with an individual leisure agendas (Hood 1983), socialisation and cultural values, would be more difficult to change through managerial initiatives, particularly in the short-term. As such, it appears from the present study that significant market development gains would be enjoyed through targeted communication

programs aimed at changing the perceived image of museums, and in particular the image held of the object-based museum, by non-visitors. Furthermore, as visitors and non-visitors in the present study were not found to differ in terms of the expectancy beliefs they attached to psychomotor-mindfulness experiential outcomes, this experiential domain, particularly in the object-based museum may, as suggested by East (1993), represent a *'necessary'* but not *'sufficient'* condition to explain museum visiting intentions.

b) Differences Between Intenders and Non-Intenders in terms of Normative Beliefs and Motivation to Comply with Salient Referents

Normative beliefs associated with all four salient referents were found to be extremely significant in differentiating those who intended and those who did not intend to visit the idea-based museum ($p < .001$), while the perceived approval of partners ($p<.001$) and friends ($p<.001$) were found to strongly differentiate intenders and non-intenders in the object-based museum (see Tables 7.2 & 7.3). In contrast, motivation to comply with salient referents was not found to differentiate those who intended and those who did not intend to visit either museum, suggesting, consistent with the study of several recreational activities (e.g. Ajzen and Driver 1991), that increases in motivation to comply will not produce an increase in an individual's intention to visit a museum[2].

Interestingly, a notable exception in the lack of difference between intenders and non-intenders in terms of motivation to comply was found for the motivation to comply with children ($p=.02$) in the object-based museum. Intenders were found on average to be more likely to comply with the desires of children, compared to non-intenders. However, compliance with children's wishes was a secondary perspective, because, as shown in Table 7.3, in absolute terms respondents were on average less likely to comply with the desires of children than to accommodate the wishes of partners and friends.

[2] Only when respondents uniformly expect referent approval would motivation to comply be expected to positively differentiate intenders and non-intenders. In contrast, only when respondents uniformly expect referent disapproval would motivation to comply negatively differentiate those who intend and those who do not intend to visit (Ajzen and Driver 1991).

c) Differences Between Intenders and Non-Intenders in terms of Control Beliefs

Overall, Tables 7.2 and 7.3 show that intenders and non-intenders in both museum sub-samples were constrained in terms of external time and planning resources, while intenders and non-intenders in the object-based museum report intra-personal constraints which were overcome in the idea-based museum sub-sample. In contrast, both individuals who intended, and those who did not intend, to visit the idea or object-based museum reported, on average, some degree of control in terms of interpersonal situational resources, suggesting that individuals do not need to find someone to go with and need less situational stimulus, particularly for visiting the idea-based museum. Further, and consistent with TOPB, findings from the present study show that, with the exception of extrinsic resource, those who intended to visit generally reported higher levels of control than those who did not intend to visit (see Table 7.2 &7.3). Interestingly, for extrinsic resources those who intended to visit reported higher levels of extrinsic constraints than non-intenders, suggesting that intenders may be more realistic in terms of the perceived resources they need to support museum visiting (Beale and Manstead 1992), and that past experience may be an important moderating variable in TOPB (Bagozzi and Kimmel 1995, Beale and Manstead 1992).

Tables 7.2 and 7.3 show that although the differences between intenders and non-intenders in terms of PBC were generally consistent with the ideas presented in TOPB, few of these differences in PBC were statistically significant, particularly in the idea-based museum sub-sample. These findings suggest that differences in perceived levels of constraint, or control, may not be a causal factor in explaining visits to idea-based museum attractions in a 12-month period. In contrast, relatively strong and significant differences were identified between intenders and non-intenders in the object-based museum for interpersonal situational control ($p<.000$) and intrapersonal awareness resource allocation ($p=.02$). For example, on average respondents who did not intend to visit an object-based museum were, compared to those respondents who intended to visit, relatively less in control of the resources associated with finding partners and needing situational stimuli and were relatively more deficient in

terms of knowing about museum as public resources. Bandura's (1977) suggested that self-efficacy (intrapersonal control) should impact on intention and that outcome expectancies (external control) are likely to be directly related to actual behaviour. In contrast, the findings of the present study suggest that time and planning outcome expectancies have a significant and stronger motivational role on intention than self-efficacy intrapersonal knowledge and awareness.

7.2 Measuring Belief Product Terms: Conceptual and Methodological Analyses

Expectancy-value beliefs and subjective normative beliefs in both TRA and TOPB were originally conceived as the product sum of behavioural beliefs ($\Sigma b_i \times e_i$) and the product sum of subjective beliefs and motivation to comply ($\Sigma sb_i \times mci$), respectively. Criticism of TRA and TOPB has concerned both the multiplication of sub-component measures in the models, as well as the assumption of a summated index (e.g. Bagozzi 1985 & 1984, Evans 1991, Sparks et al 1991, Valiquette et al 1988, Shrimp and Kavas 1984, Miles and Cairns 1995). The following section will consider the combinational rules associated with TRA and TOPB, while sections 7.5 and 7.6 will examine the summated index assumptions and the structural deficiencies associated with expectancy-value attitude models.

Multiplicative Combination Rules for Beliefs Components in TRA and TOPB

Although, as noted in Chapter 1, concern has been expressed about the ability of the multiplicative combinational rule to represent an individual's conscious experience in forming motivational choices (Grunter 1982, Bagozzi 1985), the present study accepts the view that these algebraic formulations can be considered at least 'paramorphic models'[3](Dabholkar 1994) of decision making.

[3] Paramorphic models are described as those models that do not represent the actual cognitive algebra within an individual's mind because they do not measure actual cognitive processes. These models instead represent decision-making models in the form of an analogy that are not equivalent to reality but the outcome of which have been found to explain and predict real phenomena (Dabholkar 1994).

More pertinently for operationalising the expectancy-value belief basis of TOPB, the measurement and conceptual problems associated with the use of seven-point scales to operationalise the multiplicative integration rule were carefully considered. As noted briefly in Chapters 1 and 4, Bagozzi (1984) and others (Evans 1991, Sparks et al 1991, Valiquette et al 1988, Hewstone and Young 1988, Ryan and Bonfield 1975, Schmidt 1973) have stressed that beliefs and evaluations in expectancy-value models are not ratio scaled, and at best may be considered interval in nature if they contain seven discrete measurement points or more (Hair et al 1995). Concern regarding the level of measurement used in operationalising expectancy-value models exists due to the previous lack of consistency in the measurement of sub-components of TRA and TOPB in studies[4] and because multiplicative models based on non-ratio scales have been found to incur significant methodological and conceptual problems. In terms of methodological ambiguities, different scaling options have been found to substantially alter the relationship between the product term (e.g. $\Sigma b_i \times e_i$) and a criterion variable (e.g. Aact or BI), making the meaning of the correlation between the product term and criterion arbitrary (Schmidt 1973, Evans 1991, Bagozzi 1984, East 1993).

Several suggestions have been advanced as mechanisms for resolving the problems associated with multiplying interval scales, and choosing the most appropriate scaling option. East (1997 and 1993), for example, has suggested choosing the scaling option that produces the highest correlation with a criterion variable. However, beyond empirical capitalisation,

[4]Overall, there has been little agreement among researchers on the most valid way to measure multiplicative composite variables in TRA and TOPB. Originally, Fishbein and Ajzen (1975) conceived both likelihood and evaluation as bi-polar scales in their early conceptualisation of attitude-behaviour models so as to capture a 'more general sense' of subjective probability (Fishbein and Ajzen 1975, p61) which did not assume a mutually exclusive and exhaustive sub-set of beliefs that would sum to one and which also allowed for degrees of disbelief regarding a negative attribute to contribute positively towards overall attitude (Fishbein and Ajzen 1980). However, in 1980 Fishbein suggested that likelihood, or the perceived likelihood of realising outcomes associated with a behaviour, might be more appropriately measured as a uni-polar scale when personally salient beliefs were used. Since that time studies framed within the TRA tradition have used bi-polar (-3 to +3) or uni-polar scales (0-6 or 1-7) to measure behavioural likelihood beliefs (Raats et al 1995, East 1993, Ajzen and Driver 1991).
In contrast to the variety of scaling options used to measure subjective probability or behavioural beliefs, there has been a tendency to consistently measure outcome evaluations as bi-polar scales (e.g. -3 to +3). Similarly, and as mentioned in Chapter 4, there has been a reasonable degree of consensus regarding the measurement of social normative beliefs (East 1993). Social normative pressure (or approval) has been measured on a bi-polar (-3 to +3) scales, while motivation to comply is seen as an uni-polar scale ranging from 1 to 7.

this procedure is problematic when there is the potential for expectancy-value beliefs to be multi-dimensional. Bagozzi (1984), on the other hand, reviews several mechanisms, including optimal scaling[5] (Holbrook 1977, East 1993), conjoint analysis (Rao 1977) and Thurstone and Jones' (1957) method for developing ratio scales, as means for resolving the problem of linear transformations for less than ratio data in multiplicative models. For each of the mechanisms proposed, Bagozzi (1984) identified significant conceptual or methodological limitations[6] and proposed an alternative hierarchical regression procedure that leaves the correlation between summated multiplicative terms (e.g. expectancy-value products) and a criterion variable (e.g. attitude) unaffected by the scaling option employed.

Bagozzi (1984) argued that this hierarchical regression procedure overcomes difficulties in the definitive determination of the relationship between belief based, global and behavioural intention measures in TRA or TOPB. However, East (1993), has brought attention to a flaw in Bagozzi's regression procedure noted by Pieters (1988). Pieters (1988) has argued that the hierarchical regression procedure does not allow for the possibility that the additive term, used to partial out all effects beyond those associated with the interactive (multiplicative term), measures or captures the same phenomena as the interactive term. To date, as such, the methodological problems associated with operationalising multiplicative composites in expectancy-value theory using interval scales appear to have remained largely unresolved. Recently, East (1993) examined the relationship between intention and both the individual belief-based composite variables (e.g. Σb_i x e_i, Σsb_i x mci *and* Σcb_i x p) and global measures of Aact, SN and PBC in TOPB. East found different scaling options affected to a

[5] Optimal scaling is a regression procedure which derives scale constants which when added to the likelihood and evaluation measures, for example, optimises the relationship between the sum of expectancy-value products and Aact.

[6] However, other authors have also criticised optimal scaling procedures. For example, Ajzen (1991) notes that generally the procedure capitalises on chance and has not been found to substantially improve the correlation between product sum and global measures of attitude (Aact) (Ajzen 1991). Further, East (1993) found that Holbrook's optimal scaling procedure adds the same corrections to all the measures of the same kind i.e. likelihood beliefs or evaluations, while intuitively it seems that different attributes may require different corrections. East found that individual variables of the same kind did optimise differently and notes that this has severe implications for the size of data sets used in studies. However, although East (1993) anticipated that this differential optimisation may change the order of importance given to attributes when different scaling options were applies, he found this was not the case and has called for more studies to substantiate his findings.

very limited extent the relationship between belief-based multiplicative variables and global measures, and that the relationship between individual expectancy-value products and measures of intention were largely unaffected by changes in the numerical scaling range used. As such, East's (1993) findings provide some confidence in the 'major product correlates identified in past studies' (East 1993) and suggest perhaps that the earlier suggestions that correlations between belief-based and global measures were unstable may have been due to problems associated with structural assumptions of a summated index rather than the scaling range employed.

However, regardless of whether methodological ambiguities associated with the multiplication of interval scales can or have been resolved, there are significant conceptual problems, first alluded to by Bagozzi (1984), who called for scaling options to be chosen on an 'a priori' conceptual basis, whenever there was no firm knowledge of how to validly measure the expectancy-value product. Several authors have subsequently acknowledged that the choice of numerical scaling range for interval scales, result in different conceptual meanings for the belief-products derived (Bagozzi 1984, Sparks et al 1991, Hewstone and Young 1988, Cable et al 1987). On a qualitative level, as such, the product terms produced from different numerical scaling ranges have different interpretations and meaning. For example, the traditional use of bi-polar scales for the measurement of both b*i* and ei would lead in the study of museum consumption to the atheoretical situation where an individual who does not like looking at rows of Roman coins in glass cabinets when visiting a museum and does not expect to see rows of Roman coins in glass cases at his or her local museum would achieve the same score, and thus be quantitatively equivalent, to an individual who likes looking at rows of Roman coins in glass cabinets and who expects that the local museum houses a good collection of Roman coins presented in the format. Clearly the two individuals in this example are qualitatively different. It seems more likely that an individual who does not like looking at rows of Roman coins in glass cabinets and does not think they form a part of the exhibition at the local museum would have a neutral or mildly positive expectancy-value contribution to his or her overall attitude towards visiting the local

museum. This would imply a uni-polar scale from 0 to 6 as appropriate to achieve a neutral contribution to attitude, while a uni-polar 1 to 7 scale would be needed to operationalise the mildly positive contribution to attitude.

Cable et al (1987) have noted that beyond the conceptual validity, the numerical range associated with the traditional bi-polar scales (-3 to +3) suggested by Fishbein and Ajzen (1975) for both behavioural beliefs and outcome evaluation reduces the managerial relevance of the information collected as it does not distinguish individuals in ways which are meaningful for product or market development. Cable et al (1988) proposed a uni-polar scale from 0 to 1 as conceptually valid in creating a logical ordering of individuals along a continuum of four possible attitude situations (+b+e, -b-e, -e+b, +b-e) based on the relative contribution of the belief and evaluation components. The present study similarly adopted a bi-polar scale from –3 to +3 to measure outcome evaluations (e*i*) and a uni-polar scale from 0-6 to measure behavioural beliefs (b*i*). Bi-polar scaling from 0 to 6 retains the logical ordering of the four generic expectancy-value products identified by Cable et al (1988). In addition, and as noted in Chapter 4, subjective normative belief products were based on bi-polar scaling (-3 to +3) for subjective approval beliefs and uni-polar scaling (1 to 7) for motivation to comply. The difference in the uni-polar scaling adopted for behavioural beliefs and subjective probability in the present study accommodated the perceived inability for motivation to comply with specific referents to have no impact and neutralise normative beliefs (see Chapter 4).

Behavioural beliefs *(bi)* and the desirability value *(ei)* associated with experiential outcomes were analysed separately in Chapter 5 and 6 respectively. In these Chapters it was found that beliefs and evaluations were organised into five categories in the individual's mind. Behavioural beliefs and evaluations were combined in order to operationalise motivation as value-contingent expectancies, and further multiple group CFA analyses were undertaken in order to establish whether the five-dimensional experience structure identified in Chapter 5 and 6 was appropriate for value-contingent expected experiential outcomes (see Figure 7.3).

For both the idea and object-based museums, the five-dimensional structure was confirmed for the product of behavioural beliefs and outcome evaluations (b*i* x e*i*) (x^2=106.58, df=.88, p=.09, x^2/df=1.21, GFI=.94, AGFI=.90, RMSEA=.02, TLI=.96, CFI=.97, NFI=.88)[7]. Further the five dimensions of expectancy-value (or value-contingent) experiences were found, with the exception of dysfunctional-setting expectancy-value experiences, to have composite reliabilities and measures of average variance extracted above their required .7 and .5 thresholds respectively (see Table 7.4).

Table 7.4: Factor Weightings, Individual & Construct Reliability and Variance Extracted Measures for Five Dimensional CFA Model

	Factor Weighting	Individual Item Reliabilities	Composite Construct Reliability	Average Variance Extracted
Idea-Based Museum				
Positive Intrinsic Expectations				
Feel entertained	.78	.60	.79	.66
Find learning fun	.84	.71		
Dysfunctional Setting Expectations				
Find it tedious	.77	.59	.65	.37
Feel unsure of how to look at the objects	.62	.38		
Feel uneasy or uncomfortable	.44	.19		
Reflexive Instrumental Benefits				
Feel more appreciative of life today	.87	.76	.82	.69
Think about the priorities in your life	.79	.63		
Projective Absorption				
Imagine what your life would have been like	.82	.67	.76	.65
Feel a connection with the past	.74	.55		
Psychomotor Mindful Interactivity				
Use computers	.77	.60	.70	.61
Use models	.83	.70		
Touch real objects	.81	.66		
Object-Based Museum				
Positive Intrinsic Expectations				
Feel entertained	.77	.60	.76	.61
Find learning fun	.79	.62		
Dysfunctional Setting Expectations				
Find it tedious	.73	.53	.74	.49
Feel unsure of how to look at the objects	.68	.26		
Feel uneasy or uncomfortable	.52	.27		
Reflexive Instrumental Benefits				
Feel more appreciative of life today	.85	.73	.79	.65
Think about the priorities in your life	.76	.58		
Projective Absorption				
Imagine what your life would have been like	.83	.69	.75	.68
Feel a connection with the past	.71	.50		
Psychomotor Mindful Interactivity				
Use computers	.62	.39	.86	.68
Use models	.89	.79		
Touch real objects	.92	.85		

[7] ADF estimation was used as the expectancy-value belief data was not found to have a multivariately normal distribution in either the idea (Mardia's coefficient =47.78, CR=18.40) or object-based museum sub-samples (Mardia's coefficient =58.29, CR=22.49).

A series of nested models were compared to determine if the two museum sub-samples differed significantly in terms of the five dimensional value-contingent experience model. Table 7.5 shows that, with the exception of the factor weighting of psychomotor mindfulness on *'using computers'*, the two museum sub-samples were equivalent in terms of the relationships between expectancy-value experience domains (interfactor correlations) and the relationship between individual expectancy-value experiences and their respective experiential domains.

Table 7.5: Testing for Differences between the Idea and Object-Based Museum Sub-Samples in terms of Value-Contingent Expected Experiences

Hypotheses	Constrained Models		Difference Between Nested Models		
	x^2	df	$x^2/2$	df/2	p
Invariant factor (measurement) pattern	124.38	95	17.80	8	$p<.05$
Invariant factor (measurement) pattern *except for using computers*	110.31	94	3.73	1	$p>.05$
Invariant interfactor correlations	119.91	104	9.60	10	$p>.10$
Invariant latent factor variance	152.71	109	32.80	5	$p<.001$
Invariant residual variance in observed variables	160.88	116	40.95	12	$p<.001$

Interestingly, comparing the results for the two museums (Table 7.4), analyses show that the psychomotor mindful value-contingent experience domain loads more highly on *'using computers'* in the idea-based museum compared to the object-based museum sub-samples (.77 and .62, respectively), as would be expected from the different orientations of the two museums towards interactive -technology as part of interpretive design. However, Table 7.5 shows that the idea and object-based museum were not equivalent in terms of the reported range of value-contingent experiences measured for the five latent experience domains (latent variable variance) and the amount of measurement error in the individual observed expectancy-value experiences. Inspection of Table 7.4 revealed lower reliability in the observed variables associated with dysfunctional setting expectancy-value experiences, greater variance in the dysfunctional setting experience domain and less variance in the projective absorption value-contingent experience domain in the object-based museum sub-sample to account for these differences observed between the two museum sub-samples. Overall, these findings (Tables 7.4 and 7.5) show that the two museum attraction types are

equivalent in terms of the structure of value-contingent experiences reported and the dynamics of value-contingent experience domains, as measured by the factor pattern matrix and interfactor correlations. As such, the present analysis shows that the combination of desirability value (Chapter 6) with likelihood expectancy (Chapter 5) overcomes to some extent the strong and significant differences observed in the dynamics of likelihood expectancy museum experiential domains noted in Table 5.8 of Chapter 5. As such, these findings clearly highlight the importance of accounting for both the desirability value, and measurement error attached to museum experiential outcomes, when assessing the motivational implications of the museum opportunity spectrum (Loomis 1993, Manfredo ad Driver 1996). Further, the present analysis highlights the significant methodological and conceptual neglect of museum and heritage studies to date, where desirability value and measurement error have not been considered in describing, or inferring, the reasons why individuals visit these attractions.

7.3 An Examination of the Direct or Global Aact, SN and PBC in TOPB

Both TRA and TOPB assume a linear causal process from beliefs associated with expectancy-value outcomes (b*i* x e*i*), normative beliefs (sb*i* x mci) and control beliefs (cb*i*) through to direct of global assessments of attitudes (Aact), subjective norm (SN) and perceived behavioural control (PBC) as the mechanisms by which an individual forms his or her behavioural intention, and it is for this reasons that attitude-behaviour models have been described as uncompromising cognitivism (East 1997). Some authors (e.g. Fazio 1986, Fazio et al 1983, Zajonic 1986, Eiser and van der Plight 1988) have questioned the causal direction of the arrows shown schematically in Figures 1.1, suggesting that direct or global measures of Aact, SN and PBC may be primary in motivating behaviour. In this way, these authors argue that positive attitudes (Aact) may be formed towards museum visiting, for example, which in turn serve to activate positive cognitive

expectancy-value thoughts that are congruent with this attitude[8]. The lack of experimental conditions associated with the present research design make an assessment of the causal assumptions, or directional arrows, in TRA and TOPB beyond the scope of the present study. As such, and in common with other studies (e.g. East 1993, Mittal 1993, Bagozzi 1981), the validity of the directional arrows is based on the normative theories of TRA and TOPB and future experimental research is required to validate these causal assumptions (East 1993).

Previous analyses both in earlier Chapters and the present one have focused on the indirect or belief based cognition's associated with museum visiting intentions. Consistent with other studies grounded in expectancy-value attitude models, the quantitative schedule of the present study also included measures of direct affective attitude (Aact), subjective norm (SN) and perceived behavioural control (PBC). This allowed for the present study to assess the predictive relationships between direct (global) and indirect (antecedent belief) measures of attitude, subjective norm and perceived behavioural control suggested by TOPB as well as to determine the nomological validity of the entire TOPB model shown in Figure 1.1. However, before the predictive and nomological validity of TRA or TOPB for museum visits could be evaluated, the measurement quality, or convergent validity and reliability of the direct measures of Aact, SN and PBC needed to be determined.

7.3.1 Measuring Global Perceived Behavioural Control (PBC) In Visiting Museums

As noted in Chapter 4, measures of PBC aim to reflect the opportunities for performing a behaviour, such as a museum visiting as well as provide an assessment of the requisite personal or instrumental resources needed for acting (Bagozzi and Kimmel 1995). In the present study, two seven point scales were included in the quantitative schedule to obtain a

[8] It is also acknowledged that the primacy of cognitions and global attitude in the prediction of intention may be linked to involvement (East 1993), when belief based processing is associated with high involvement (Petty and Cacpioppo 1985). Ajzen and Driver (1991) did not find that the prediction of intentions was significantly affected by levels of involvement and commitment to a recreational activity, suggesting that direct measures of the components of TOPB are sufficient in capturing the impact of recreational involvement on subsequent recreation behaviour. However, they did not assess the impact of involvement on belief-based measures of Aact, SN and PBC. Similarly, the present study was not designed to test the impact of involvement on beliefs in TOPB.

direct measure of PBC. With respect to the idea or object museum collage shown to individuals, respondents were asked to indicate first how likely it was that things may hinder or prevent them from visiting that type of museum, and secondly, their perception of the easy or difficult of visiting that type of museum. Both questions asked respondents to constrain their assessment of control to the next 12 month period. In both museum sub-samples the two measures were found to have high and acceptably reliability as measured by Cronbach aplha coefficients of .84.

7.3.2 Measuring Subjective Norms Towards Visiting the Idea or Object-Based Museum

Similarly, subjective norm was assessed using two seven point scales. Respondents were asked to evaluate how true or false the statement *"most people who are important to you think you should visit a museum like this the next 12 months"* was for them, and secondly, the extent to which they thought people who were important to them would approve of visiting a museum like the one shown in the collage in the next 12 months. Direct or global measures of subjective norms were found to have acceptable reliability in both the idea (.83) and object-based (.84) museum sub-samples.

7.3.3 Measuring Attitude towards Visiting the Idea or Object-Based Museum

An individual's attitude towards an action, such as museum visiting, captures that person's overall evaluation or liking for museum visiting and is often referred to as an individual's

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'affective' reaction[5], suggesting that attitude is a feeling-based evaluation of a behaviour, and creating conceptual and semantic confusion with the broader concept of emotion, particularly in the study of experiential consumption (Dabholkar 1994). Generally, however, it is agreed that attitude is a unidimensional evaluation of a behaviour, representing an individual's state of preparation or readiness to behave (Allport 1935).

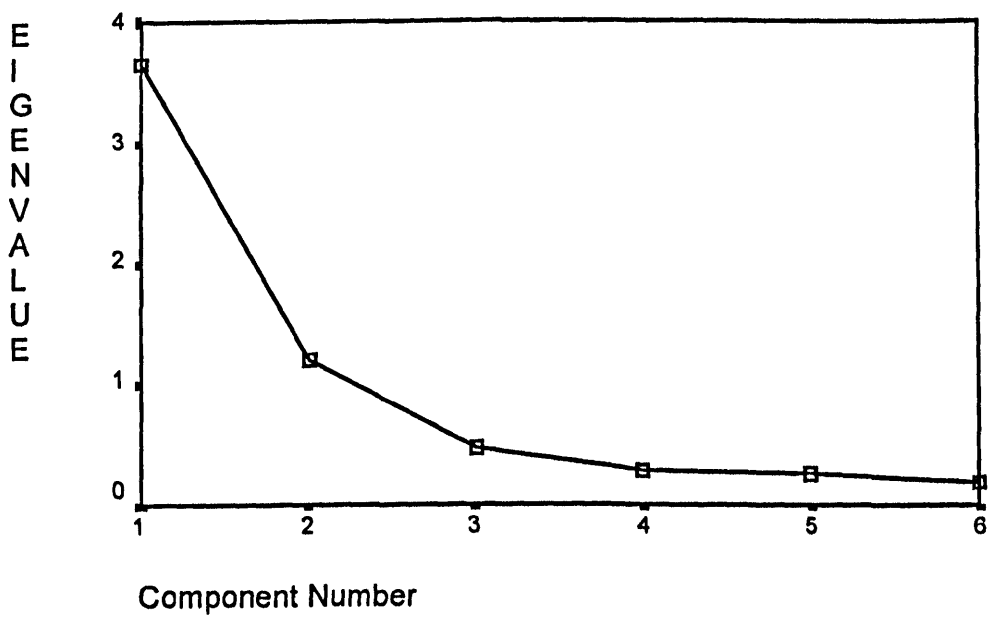
As noted in earlier Chapters, museum visiting has been described as both task-related, or instrumental, in terms of learning and acquiring new understanding, and to contain hedonic value, associated with the enjoyment, pleasure or play. As such, and in common with recent attitude studies that have sought to improve the construct validity of attitude (East 1993, Haddock and Zanna 1993, Allen et al 1992, Ajzen and Driver 1992&1991, Batra and Ahtola 1991, Crowley et al 1992, Holbrook et al 1986), *Aact* was measured using a series of seven point semantic differential scales aimed at capturing both *instrumental means-end,* and *experiential-process* global attitudes (see question A7 on quantitative schedule). Three semantic differential measures were hypothesised to be instrumental in tone, including dimensions of *use-useless, help-not helpful* and *beneficial-not beneficial;* while experiential-process attitudes were measured by a three semantic differential scales anchored by adjectives which were more hedonic in tone, including *pleasant-unpleasant, enjoyable-not enjoyable,* and *interesting-boring.* In the quantitative schedule, the order of experiential-process and instrumental means-end attitudes were randomly mixed, and the direction of positive and negative adjectives reversed for several items.

[5] Both attitudes and the broader concept of emotional reactions are referred to as 'affect' creating potential confusion, particularly in the study of experiential consumption, between attitude and emotions (Allen et al 1992, Dabholkar 1994, East 1997). However, several attitude studies prompted by a the neglect of emotional experience in consumption studies (Hirschman and Holbrook 1982, Holbrook and Hirschman 1982), have identified that attitude towards a behaviour is likely to include both emotional (hedonic) and goal-oriented (means-end) evaluations (Allen 1994, Ajzen and Driver 1991&1992, Zanna and Rempel 1988, East 1993), particularly for experiential goods and services. This approach, in integrating the diverse literatures that deal with attitudes and emotions, treats emotional experience as another antecedent, along with instrumental beliefs, of an individual's evaluation of an act or object.

Principal component and confirmatory factor analyses were conducted in order to assess whether the six semantic differentials used to measure attitudes converged to identify the *instrumental means-end* and *experiential-process* dichotomy of attitude hypothesised.

Exploratory principal component analysis was conducted on the combined idea and object-based museum sub-samples (N=400)[6]. From the initial factor matrix, the eigenvalue criteria > 1 suggested there were two principal components accounting for 80.6% of the variance in the attitude data. However, the scree plot test (see Figure 7.1) suggested 3 components may more appropriately describe the attitudinal data. As such, principal component solutions with Varimax rotation were examined for both the three and two component solutions.

Figure 7.1: **Scree Plot for Semantic Differential Scales of Direct Global Attitude**



The three-dimensional model of museum attitudes was rejected when an examination of the rotated principal component solution revealed the third extracted component had a

[6] The semantic differential data was considered appropriate for exploratory principal component analyses with a ratio of 66.7 observations to each variable (Hair et al 1995), a rejection of Bartlett's sphericity test of variable independence at p<.000 and a Kaiser-Myer-Olkin measure of sampling adequacy of 0.81 considered meritorious (Kaiser and Rice 1974).

particularly low eigenvalue (.461), and to load on only the *use-useless* semantic differential significantly [7].

Table 7.6 details the two attitude dimensions found in exploratory principal component analysis and shows the present study supports the two component model of attitude suggested by Ahtola (1985) and measured in several studies subsequently (e.g. Ajzen and Driver 1992, Crowley et al 1992).

Table 7.6: Principal Component Solution (with Varimax Rotation) of Attitude (Aact) Towards Museum Visiting

	Dimension 1 *Experiential Process Attitude*	Dimension 2 *Instrumental Means-End Attitude*
Eigenvalue *% of variance explained*	3.658 *61.0%*	1.179 *19.7%*
Enjoyable – Not Enjoyable	.901	
Interesting - Boring	.897	
Pleasant - Unpleasant	.870	
Beneficial – Not Beneficial		.950
Helpful – Not Helpful		.891
Useful - Useless	.481	.639
Alpha	**.9090**	**.8512**

The first dimension extracted, and primary evaluative dimension for both museums, related to experiential-process attitudes as *enjoyable, interesting* and *pleasant.* This first dimension explained 61.0% of the variance in the attitude data and was found to be reliable with a coefficient alpha of .9090, mean inter-item correlation of .711 and corrected item-to-total correlations of .79 to .85. It should be noted, however, that experiential-process attitude, as measured in the present study, differed from the broader concept of 'hedonic response' (Hirschman and Holbrook 1982) associated with experiential consumption. In an effort to conceptualise 'total affect', Ahtola (1985) explains the distinction between *experiential attitudes*, as the anticipated or experienced pleasure reactions of an action, and the multi-

[7] It was acknowledged that this third dimension might capture a general attitude concept that has been identified in multi-dimensional attitude studies (Ahtola 1985, Ajzen and Driver 1991, Crowley et al (1992), Batra and Ahtola 1991). However, because of the multiple-measure approach adopted in the present study, it was decided to measure general attitude as a second order latent variable identified by first-order latent variables associated with experiential and instrumental attitudes.

sensory or fantasy experiences associated with *hedonic response* (Hirschman and Holbrook 1982), as the 'powerful determinants of this emotional reaction' or belief- based experiences. The experiential attitude dimension identified in Table 7.6 is consistent with Ahtola's (1985) definition of experiential attitude as the global assessment of emotional experiences anticipated in the museum visit.

The present study confirmed that a second attitude dimension, explaining 19.7% of the variance in the attitude data, was related to instrumental means-end evaluations of museum visits as *beneficial, helpful and useful.* The instrumental dimension was found to have an acceptable alpha coefficient of .8647, a mean inter-item correlation of .6135, and corrected item-to-total correlations between .59 and .76 suggesting adequate scale reliability. However, it was found that the alpha coefficient associated with instrumental attitude dimension could be improved to .85 by deleting the use-useless semantic differential. Further, an inspection of the rotated factor matrix found that the experiential-process latent dimension (component 1) also loaded significantly on the *useful – useless* semantic differential at above the less stringent significance level of 0.3 (Hair et al 1995). Together, these findings suggested that the *useful – useless* evaluative dimension may reduce the convergent and discriminant validity of the two dimensional attitudinal structure identified, a hypothesis that was examined in subsequent confirmatory factor analysis.

Multiple group confirmatory factor analysis was used to fully assess the convergent and discriminant validities of the experiential-instrumental attitude model for both the idea and object-based museums simultaneously, while accounting for measurement error[8]. The resulting model fit could only be marginally accepted. The Chi-square statistic was highly significant (x^2=40.41, df=16, p=.001) and the incremental goodness of fit indices suggested that the model could be improved (TLI= .85, CFI = .92, NFI = .88). Measures of absolute goodness of fit, however, were generally acceptable (GFI=.94, AGFI=.85, x^2/df=2.53,

[8] Asymptotic distribution free (ADF) estimation was used because the attitudinal data were not found to have a multivariate normal distribution in either the idea (Mardia's coefficient =60.417, CR=43.602) or object-based museum sub-samples (Mardia's coefficient 15.031, CR=10.848).

RMSEA=.06); in both sub-samples there were no negative or non-significant error variances; and the experiential and instrumental latent dimensions were found to load significantly, and at above .5, on their respective observed variables.

The matrices of standardised residuals were examined to determine if the model could be improved. In both museum sub-samples, the *use-useless* semantic differential was found to have unacceptably high standardised residuals (+/- 2) with one or more of the observed variables associated with experiential attitudes[9]. Further, in the object-based museum sub-sample, the modification indices suggested that allowing the latent residual variable associated with the *use-useless* semantic differential to correlate with the experiential latent dimension would improve the overall model fit. Together these findings suggest, as indicated in exploratory PCA, that the *use-useless* semantic differential should be deleted.

A second iteration of the two-dimensional model of museum visiting attitude with *use-useless* deleted was found to fit the data well (x^2=3.54, df=8,p=.90, x^2/df=0.44, GFI=.86, AGFI=.67, RMSEA=.00, TLI=1.04, CFI=1.00, NFI=.99). Table 7.7 shows that there were no negative or non-significant error variances and all factor loadings were above the required 0.5 level. Further, Table 7.7 shows that the experiential and instrumental latent attitude constructs achieved high levels of composite and average variance extracted reliability. However, the factor loading for *enjoyable-not enjoyable* in the object-based museum sample was high at .96 and could only be marginally accepted (see Table 7.7).

Support was also found for the discriminant validity of experiential and instrumental attitudes. For both the idea and object-based museums, the correlations between the two

[9] In the idea based museum *use-useless* was found to have large standardised residuals of 2.25 and 2.56 with *pleasant-unpleasant* and *interesting-boring* semantic differentials, respectively. Similarly, in the object-based museum *use-useless* had a high standardised residual with *the interesting-boring* semantic differential. However, in both museum sub-samples *use-useless* was not found to have negative standardised residuals with beneficial-not beneficial or helpful-not helpful that would have suggested that *useful-useless* had been assigned to the wrong latent variable.

Table 7.7: Factor Weightings, Individual & Composite Reliability and Variance Extracted Measures For the Two Dimensional CFA Attitude Model

	Factor Weighting	Individual Item Reliability	Composite Construct Reliability	Average Variance Extracted
Idea-Based Museum				
Experiential Attitude				
Pleasant-unpleasant	.83	.69	.90	.75
Enjoyable-not enjoyable	.91	.82		
Interesting - boring	.85	.72		
Instrumental				
Beneficial – not beneficial	.88	.77	.87	.77
Helpful – not helpful	.88	.77		
Object-Based Museum				
Experiential Attitude				
Pleasant-unpleasant	.88	.78	.83	.81
Enjoyable-not enjoyable	.96	.92		
Interesting - boring	.86	.74		
Instrumental				
Beneficial – not beneficial	.87	.75	.85	.74
Helpful – not helpful	.85	.72		

latent dimensions (.52 and .45, respectively) were less than .90 (Hair et al 1995); below the .65 level required to avoid the problems associated with multi-collinearity when predicting a criterion variable (Batra and Ahtola 1991); and less than the average variances reported in Table 7.7 for both attitude types. Additional support for discriminant validity was found in pairwise x^2 comparison tests which revealed a significant drop in x^2 value between nested models in the idea-based museum sample ($x^2/2=4.78$, $df/2=1$, $p<.05$), and a change in x^2 square value which approached significance in the object-based museum ($x^2/2=3.77$, $df/2=1$, $p>05$ but $p<.10$). Lastly, the present analyses found that there was less that a 5% chance of a perfect correlation between experiential and instrumental attitudes in either the idea (SE=.14) or object-based museum (SE=.16) samples. As such, and following a rejection of a one dimensional model of museum attitudes ($x^2=97.39$, $df=18$, $p<.000$, $x^2/df=5.41$, GFI=.86, AGFI=.67, RMSEA=.11, TLI=.73, CFI=.56, NFI=.70), the experiential-instrumental attitudinal model was accepted for the idea and object-based museum samples valid

(x^2=3.54, df=8, p=.90, x^2/df=.44, GFI=.99, AGFI=.98, RMSEA=.00, TLI=1.00, CFI=1.04, NFI=.99). Overall, these findings confirmed that museum visits were not evaluated along one continuum as they have traditionally been measured in attitude studies. Instead, in the present study museum visits were evaluated along two dimensions associated with experiential-process and instrumental means-end value, providing support for the economic and festive implications of consumption environments reported by Sherry (1990).

Interestingly, experiential and instrumental attitudes towards museum visits were evaluatively consistent[20] (Babin and Boles 1994, Ahtola 1985), as measured by a positive correlation between these two dimensions, providing support for a cognitive balance mechanism proposed by Ahtola (1985) for attitudes in experiential consumption. Furthermore, and consistent with earlier findings regarding expectancy-value belief domains, sequential tests of nested CFA models found the idea and object-based museums to be equivalent in terms of the structural dynamics associated with experiential and instrumental attitudes. The idea and object-based museums were found to be equivalent in terms their factor pattern matrices (x^2/2=0.53, df/2=3, p>.10)[21], interfactor correlations (x^2/2=0.01, df/2=1, p>.10)[22], residual error variance (x^2/2=9.12, df/2=5, p>.10)[23], and allowing for the multiple testing approach adopted in the current analyses, variance in experiential and instrumental latent dimensions (x^2/2=5.75, df/2=2, p<.05 but p>.03). These findings suggest that both museums are equivalent in the degree to which experiential and instrumental dimensions load on the observed semantic differential measures; the relationship between experiential and instrumental attitudes; the individual reliability of semantic differential measures of attitude; and the range of experiential and instrumental attitudes reported by respondents.

[20] Babin and Boles (1994) and Ahtola (1985) have noted that the relationship between experiential (or hedonic) and instrumental evaluations do not always have to be in the same direction. This could happen, for example, when evaluating hedonically pleasurable actions such as smoking which are instrumentally harmful (East 1993).

[21] x^2/2= 4.07 –3.54, df/2=11 - 8

[22] x^2/2=4.08– 4.07, df/2=12 -11

[23] x^2/2= 13.20 – 4.08, df/2= 17 -12

Early definitions characterised attitude as an uni-dimensional evaluation of an action or object (Allen et al 1992, Zanna and Rempel 1988, Cohen 1990, Bagozzi 1981, Ryan 1982) and it is not uncommon for a study to go to some length to identify this uni-dimensional continuum as a sub-set of semantic differential measures (e.g. Allen et al 1992). Extending this logic, the semantic differential measures used in the present study to identify experiential and instrumental attitudes were conceptualised as multiple measures of two distinct uni-dimensional evaluative continuums. Although, experiential and instrumental attitude constructs were found to have high alpha reliabilities (see Table 7.6), parallel tests using nested CFA models represents a stronger assessment of reliability than is achieved by the traditional alpha coefficient, where the equality of measurement is assumed.

As such, the two semantic differential measures, *helpful-not helpful, beneficial-not beneficial,* were hypothesised to be consistent in their measurement, or act as parallel measures of instrumental attitude, while the three semantic differential measures, *pleasant-unpleasant, enjoyable-not enjoyable, interesting-boring,* were hypothesised as parallel measures of experiential attitude.

In order to test the hypotheses of parallel measurement within attitude type, the factor matrices within experiential and within instrumental attitudes were constrained to be equivalent (Arbuckle 1997) and the resulting model fit was compared with the nested model where the factor matrices were not constrained (i.e. they were free). A first iteration of the model revealed that the assumption of parallel measures for experiential and instrumental attitudes in both museums could not be supported by the data ($x^2/2=33.72$, $df/2=14$, $p<.03$)[24]. As such,

[24] $x^2/2=37.26-3.54$, $df//2= 22-8$

each museum sub-sample was examined separately in order to assess whether the inability to accept the hypothesis of parallel measurements in the experiential and instrumental attitude constructs was due to problems associated with measurement in one museum sub-sample or both museum sub-samples. Analysis confirmed that the hypothesis of parallel observed measures could be accepted for the idea-based museum sub-sample ($x^2/2=11.02$, $df/2=6$, $p>.05$)[25], but not in the object-based museum ($x^2/2=21.92$, $df/2=6$, $p<.01$)[26].

Examination of the factor loadings for the instrumental and experiential attitudes in the object-museum sub-sample suggested that experiential attitude did not load consistently on the semantic differential variables. The restriction of parallel measurements was relaxed for experiential attitude and the model where only instrumental attitudes were constrained to be parallel was found to fit the data well ($x^2/2=0.03$, $df/2$, $p>.10$)[27]. It seemed likely that the high factor weighting for the *enjoyable-not enjoyable* semantic differential observed in Table 7.7 could be responsible for the inability to accept the hypothesis of parallel measures for experiential attitudes in the object-based museum. The *enjoyable-not enjoyable* measure was deleted and nested modelling confirmed that the assumption of parallel measurement in experiential attitude was supported by the data ($x^2/2=6.69$, $df=4$, $p>.10$)[28] . As such, for subsequent analyses experiential attitudes in the object-based museum were operationalised as the composite of *pleasant-unpleasant* and *interesting-boring.*

Overall, these findings suggest that attitude towards museum visiting is not one uni-dimensional evaluation but contains discrete experiential and instrumental sub-components, which individually represent uni-dimensional evaluative dimensions. Further, these findings have implications for operationalising the two-stage modelling approach (Anderson ad Gerbing

[25] $x^2/2= 14.05 -3.04$, $df//2= 10 -4$
[26] $x^2/2= 22.43 - 0.51$, $df//2= 10 -4$
[27] $x^2/2= 0.54 - 0.51$, $df//2= 6 -4$
[28] $x^2/2= 6.69- 0.00$, $df//2= 5-1$

1988) adopted in the present study (Chapter 8), suggesting that it was appropriate to represent experiential and instrumental attitudes as unweighted composites of the observed variables[29].

Based on the CFA models of parallel attitude measurement, the composite reliability in the idea and object-based museum for experiential (.80 and .87, respectively) and instrumental attitude (.87 and .85, respectively) were found to be high and above the minimum criteria of .7. These reliability estimates were employed to constrain the measurement and error coefficients in experiential and instrumental attitude (see Chapter 2, section 2.3.2.2(b)), when these variables were summated as unweighted composite variables in *stage 2* analyses (Chapter 8).

The hypothesis of parallel measurement was extended to direct measures of SN and PBC. However, because the quantitative schedule only included two observed variables to represent direct measures of both PBC and SN, it was not possible to test whether the two observed measures were parallel measurements of the same construct using the nested modelling approach and a formal comparison of Chi-square values[30]. However, examination of models where the two measures of SN and PBC were constrained to be parallel were found to achieve acceptable model fit in both the idea (SN x^2=1.94, df=1, p<.16; PBC x^2=0.10, df=1, p=.75) and object-based museums (SN x^2=1.94, df=1, p<.16; PBC x^2=0.74 df=1, p=.39). Further, composite construct reliability in both the idea and object museums was found to be high for SN (.86 and .86 respectively) and PBC (.84 and .84 respectively).

The hypothesis of parallel (consistent) measures was not extended, however, to the antecedent beliefs associated with Aact, SN and PBC. Expectancy-value belief domains have been described as clusters of valued-belief experiences that hang together in an individual's mind as distinct schematic or categorical representations (Dabholkar 1994). As such, individual observed value-contingent experiences within (or explained by) a latent expectancy-value

[29] This is because the present (stage one) analyses have shown these observed variables make an equal contribution to their respective attitudinal constructs.

[30] This is because the nested model for PBC and SN, where the measurement coefficients for the two observed variables are allowed to be freely estimated, had negative degrees of freedom and as such was not identified (see Chapter 2, section 2.3.2.2, sub-section a (iii)).

domain are not expected to *necessarily* be identical (Dabholkar 1994, Ryan 1982), as they represent composites based of distinct valued outcomes. As such, these distinct valued outcomes (expectancy-value beliefs) have been seen to describe the dynamics of cognitive processing, and are expected to be complex (Shimp and Kavas 1983). As such, expectancy-value belief domains can be seen as gathering together museum visiting experiences that are qualitatively slightly different but which are held in one categorical representation in an individual's mind. In contrast, the semantic differentials associated with experiential and instrumental Aact represent an attempt to use multiple measures to improve reliability. For these reasons, Ryan (1982) proposed that measures of composite reliability should be higher in the direct (global) measures of attitude than in belief-based measures, a finding which is supported in the present study for direct and indirect measures of Aact in both the idea and object-based museum sub-samples (see Table 7.4 for composite reliabilities of the five expectancy-value belief domains, and Table 7.7 for composite reliabilities of experiential and instrumental global attitude).

The present study sought to determine whether the proposed distinction between belief-based and global measures of Aact suggested by Ryan (1982) and Dabholkar (1994), and which were detailed above, held for museum consumption by testing whether the model of parallel tests for individual belief domains could be rejected. The factor matrices within the five value-contingent experiential domains, three control belief domains and for the normative belief domain were constrained to equal.

Table 7.8 (over page) shows that the hypothesis of parallel measurements in the five expectancy-value domains, subjective norm domain and three control belief domains could not be supported in the present study. These findings suggest that latent belief domains represent clusters of similar but not identical measures of value-contingent expectations, normative referent pressure and perceptions of control. Furthermore, the present findings are consistent with those reported by Ryan (1982) who rejected an unweighted additive model for observed belief measured in TRA. However, more pertinently, these findings provide support for the

Table 7.8: Testing for Parallel Measurement in Expectancy-Value, Control and Subjective Norm Belief Domains in the Idea and Object-Based Museums

Belief Domain(s)	Constrained Model		Difference Between Nested Models		
	x^2	df	$x^2/2$	df/2	p
Expectancy-Value					
Idea-Based Museum	387.28	160	277.22	102	p<.001
Object-Based Museum	387.28	160	244.35	102	p<.001
Control					
Idea-Based Museum	65.68	7	62.19	5	P<.001
Object-Based Museum	51.49	7	48.00	5	p<.001
Social Normative					
Idea-Based Museum	104.99	36	41.05	12	p<.001
Object-Based Museum	144.34	36	80.14	12	p<.001

conceptual models proposed by Bagozzi (1985 & 1988), who questioned the appropriateness of using unweighted summated indices in expectancy-value attitude models, and questioned the appropriateness of current methods associated with two-stage structural equation modelling (see Chapter 2, section 2.3.2.2(b)). In two-stage modelling, observed variables in CFA confirmed at stage one of the analysis are summed and account is taken of scale reliability. However, presently no account is taken for the relative association of observed variables to latent dimension, and this is likely to lead to sub-optimality in model testing. In the present study, as such, summated composites used in *stage 2* (Chapter 8) to represent latent dimensions took account of the unequal loading of latent dimensions on observed variables. That is, composite indices for the belief measures used in Chapter 8 to examine the nomological validity of TOPB and TRA for museum visiting were derived as weighted composites.

7.3.3.3 Nomological Validity for Experiential and Instrumental Distinction in Attitudes towards Visiting Museums

Batra and Ahtola (1991) and Ajzen and Driver (1991) in addition to confirming the convergent and discriminant validity for experiential (hedonic) and utilitarian attitudes also established the nomological validity of experiential (hedonic) and instrumental attitudes based on their relationship with attribute importance ratings (Batra and Ahtola 1991) and expectancy-value beliefs (Ajzen and Driver 1991). Both studies found support for nomological validity in that sub-sets of beliefs identified as experiential or instrumental were found to correlate

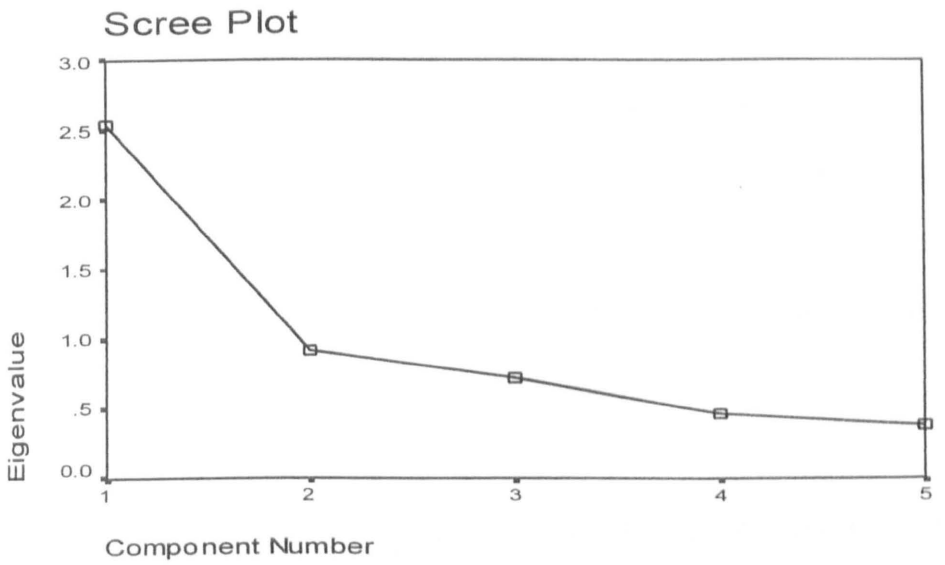
significantly with experiential or instrumental global attitudes. However, the two studies differed in their approach to identifying sub-sets of experiential and instrumental beliefs. Ajzen and Driver (1991) identified experiential and instrumental leisure attribute-beliefs *a priori*, rather than empirically, and used different evaluative dimensions to measure experiential *(pleasant-unpleasant)* and instrumental *(beneficial-not beneficial)* valued-belief expectancies in their quantitative schedule. Ajzen and Driver (1991) reported significant zero-order correlations between experiential beliefs and experiential attitudes, and also between instrumental beliefs and instrumental attitudes, and also reported good discriminant validity between the experience and instrumental sub-scales. In contrast, Ahtola and Batra (1991) derived subsets of experiential and instrumental beliefs empirically using principal component analysis on 'attribute importance ratings' (belief evaluation) to identify two principal instrumental and experiential components. Partial correlation[31] analyses were used to confirm that experiential (hedonic) attitude correlated more strongly than instrumental attitudes with the experiential (sensory) beliefs index, while instrumental attitude was found to be more strongly correlated with the instrumental belief index than with experiential attitude.

In common with Batra and Ahtola (1991), and in order understand if the expectancy-value domains could be empirically disaggregated in terms of experiential and instrumental museum-experience attributes, the present study conducted principal component analysis on the five expectancy-value belief domains confirmed earlier in the present Chapter (Table 7.4). Taken together, the eigenvalue criteria >1 suggested that only one principal component explained 48.5% of the data in the combined idea and object museum sub-sample data. In contrast the scree plot (Figure 7.1, over page) identified two principal components as a potentially more appropriate structure to explain the expectancy-value experience domain data (see Figure 7.2).

Table 7.9 details the results of a principal component analysis where a two component solution with Varimax rotation was examined for the expectancy-value domain data. It can be seen

[31] Partial correlations were used in the study by Batra and Ahtola (1991) because the experiential (sensory) and instrumental belief scales were found to correlate highly (r=.61)

Figure 7.2: Scree Plot Test of Expectancy-Value Experiential Domains (N=400)



from Table 7.9 that the two dimensions identified from the rotated matrix were not readily identifiable as either experiential or instrumental. Interestingly, however, the PCA analysis suggested that the expectancy-value experience domains could be meaningfully disaggregated in terms of a positive (pleasant) and negative (unpleasant) belief-expectancy structure, in common with several earlier studies (e.g. Giles and Cairns 1995, Terry and O'Leary 1995, Burnkrant and Page 1988) that have concentrated on the multi-dimensional composition of the expectancy-value attitudes.

Table 7.9: Principal Component Analysis with Varimax Rotation for Expectancy-Value Experiential Domains (N=400)

Expectancy-Value Experiential Domain	Dimension 1 *Pleasant Museum Experiences*	Dimension 2 *Unpleasant Museum Experiences*
eigenvalue	2.533	0.912
% Variance Explained	50.7%	18.2%
Positive Intrinsic	.847	
Projective Absorption	.814	
Reflexctive Instrumental	.782	
Psychomotor Mindful	.647	
Dysfunctional Setting		.992

As such, summated indices of pleasant or unpleasant experience dimensions were derived in order to measure a positive-pleasant (dimension 1) and a negative unpleasant (dimension 2) of

expected museum experiences from Table 7.9. Nomological validity for the *experiential* and *instrumental* attitude sub-dimensions and the *pleasant* and *unpleasant* expectancy-value dimensions was assessed using partial correlation analyses so as to account for significant positive correlations in the expectancy belief structures[32] (Table 7.10). Additionally, analyses were also conducted with the individual expectancy-value belief domains in order to assess if an alternative structure, different from the pleasant-unpleasant structure identified in PCA, could be found for expectancy-value domains (Table 7.10). The results presented in Table 7.10 are for the combined idea and object-museum sub-samples (N=400), as separate analyses in each museum sub-sample revealed consistent dynamics.

Table 7.10: Partial Correlations between Attitude Sub-dimensions and Individual Museum Experience Domains

	Attitude Sub-Dimensions	
	***Experiential* Attitudes while Controlling for Instrumental Attitudes**	***Instrumental* Attitudes while Controlling for Experiential Attitudes**
Dimensions of Museum Experience Domain		
Positive-Pleasant	.424 ***	.300 ***
Negative-Unpleasant	.266 ***	.045
Museum Experience Domains		
Positive Intrinsic	.426***	.230***
Projective Absorption	.329***	.237***
Reflective Instrumental	.270***	.182***
Psychomotor Mindful	.244***	.225***
Dysfunctional Setting	.266***	.045

*** p<.000, N=400

Table 7.10 shows that for museum visiting there was little support for the nomological validity for an experiential-instrumental dichotomy at either the belief dimension level (i.e. pleasant or unpleasant expectancy-value domains) or for the five individual expectancy-value domains (Table 7.10). In particular, Table 7.10 shows that both pleasant and unpleasant valued-expectancy dimensions were strongly correlated with experiential attitudes, when controlling for the effects of instrumental attitudes (.424 p<.000 and .266 p<.000, respectively), while only

[32] Partial correlation analyses controlled for the attitude dimension not being related in each belief domain/attitude correlation.

pleasant expectancy-value domains were found to be correlated significantly with instrumental attitudes, when controlling for the effects of experiential attitudes (.30, p<.000). Further, partial correlation analyses in Table 7.10 illustrate that pleasant expectancy-value domains correlated more strongly with instrumental attitudes (.30, p<.000) than the unpleasant expectancy-value index correlated with experiential attitudes (.26, p<.000). These findings show that there was no support for the nomological validity of Aact as a two-dimensional structure.

Similarly, the lower half of Table 7.10 shows that the five museum-experience domains (from Figure 7.3) could not be disaggregated in terms of the experiential (hedonic) or instrumental (rational) value they fulfil for potential museum visitors. Table 7.10 shows that all expectancy-value experience domains correlated more strongly with experiential attitudes than with instrumental attitude, although, with the exception of the dysfunctional-setting attitude domain, instrumental was observed to be a significant component of dysfunctional expectancy-value experiences.

Overall, these findings provide support for Ahtola's (1985) suggestion that experiential-process and utilitarian means-end attitudes are a function of a higher order general attitude concept, rather than forming two discrete sub-dimensions that are independently related to expectancy-value beliefs. Furthermore, the potential explanations for the discrepancy between the present findings and those of Batra and Ahtola (1991) and Ajzen and Driver (1991) question, for the study of experiential consumption, the validity of measuring and/or artificially separating beliefs regarding emotions experienced during consumption from instrumental means-end product or service attributes. One potential explanation for the inability of expectancy-value attitude theory to be disaggregated in terms of instrumental and experiential attitudes for museum visiting is that the context of the present study differs from that of Batra and Ahtola (1991) and Ajzen and Driver (1991). Indeed, Batra and Ahtola (1991) examined nomological validity of the experiential-instrumental dichotomy for a brand of toothpaste, a product where arguably the distinction between emotional sensory gratification beliefs (mouth freshness,

taste/flavour) and instrumental means-end beliefs (prevents plaque/tartar, decay, whiter teeth) is clearer in the mind of the consumer than is likely to be the case for museum visits, where, for example, *'seeing how people lived in the past'* is likely to include both emotional excitement or thrill and instrumental learning and novelty seeking. However, Ajzen and Driver (1991), examined five recreational activities that phenomenologically were considered similar to visiting museums. As such, the research context, seems an unlikely rationale for the present comparisons.

There appears to be two other potential reasons for the observed divergence in nomological validity for the experiential-instrumental dichotomy found between the present study and that of Ajzen and Driver (1991). Firstly, Ajzen and Driver (1991) used common adjectives to measure both attitude sub-dimensions and experiential (affective) and instrumental belief types. As such, the introduction of a Type II error in the Ajzen and Driver study is likely to have resulted in the high correlations between experiential attitudes and beliefs (which both included measures of pleasantness to unpleasantness), and between instrumental attitudes and instrumental beliefs (which were both measured along continuums of harmful to beneficial). Secondly, the belief measures used in the Ajzen and Driver's (1991) study can more clearly be assigned as emotional process or instrumental means-end, compared to the belief statements used to measure museum experience attributes in the present study. In the present study this is likely to be the result of the inductive approach to belief elicitation adopted undertaken. Respondents' experiences were not disaggregated *a priori* into emotional and instrumental sub-groups, as was found to be the case in Ajzen and Driver (1991). These tentative explanations suggest both that future research is required which should aim to identify and account for the experiential-instrumental dichotomy in analysing qualitative elicitation interviews for salient belief types. This would allow for a more informed replication of Ajzen and Driver's (1991) study. Further these tentative conclusions may also suggest that the dichotomy presented by Ajzen and Driver (1991) and Ahtola and Batra (1991) may be artificial.

To summarise, the present assessment of the utility of an experiential-instrumental distinction has shown that this distinction while obtaining convergent and discriminant validity in terms of direct measures of attitude (Aact), was not useful for disaggregating the five expectancy-value domains measured in the present study. As such, the present study concludes, in common with the notion of holistic processing of experiential consumption, that the belief basis of museum consumption cannot be disaggregated into discrete emotional and means-end functions. Furthermore, the present findings suggest that attitude models which have disaggregated cognitive and emotional beliefs (e.g. Haddock and Zanna 1993, Ajzen and Driver 1991) may not be capable of describing certain varieties of experiential consumption. This is because these models, in suggesting that experiential and instrumental attitudes form discrete schema in memory, propose that consumers will cognitively report, for example, that they will see ancient Chinese vases in a museum exhibition, and then independently report their emotional reaction towards seeing the vase. The model of general attitude, made up of experiential and instrumental sub-components, suggested by Ahtola (1985), is consistent with the inability to disaggregate the belief basis of museum consumption into discrete emotional and means-end functions. As such, the utility of Ahtola's (1985) model of attitude is the opportunity it provides to understand the relative contribution of experiential and instrumental value in motivating museum visits. Chapter 8 will examine the relative contributions of experiential and instrumental value for museum visits to the idea and object-based museums.

7.4 Concurrent Validity Between Direct Measures (Aact, SN, PBC) And Their Antecedents (e.g. $\Sigma bi \times ei$, $\Sigma sbi \times mci$, Σcbi) TOPB

According to TRA and TOPB (see Figures 1.1, Chapter 1), the indirect (belief-based) and direct measures of Aact, SN and PBC should be significantly related as beliefs are the antecedents of direct measures. However, studies framed within the expectancy-value paradigm have traditionally employed OLS regression in order to assess the predictive validity of Aact, SN and PBC, and due to the inability of OLS regression to model for the antecedents of Aact, SN and PBC in assessing predictive validity, correlational analysis (or an assessment

of concurrent validity[33]), has been the traditional approach adopted to assess the proposed relationships between belief-based and global measures of attitude, subjective norm, and perceived control in expectancy-value attitude models. The present section will review this correlational evidence in order to provide some direct comparison with previous studies.

An extensive body of correlational evidence supports the concurrent validity between belief and global measures of Aact and SN in TRA (Sheppard et al 1988) and Aact, SN and PBC in TOPB (Ajzen and Madden 1986, East 1997). Exhibit 7.1 details the main correlations found in leisure and tourism studies not cited by Ajzen and Madden (1986), Ajzen (1991) or East (1997). Early work by Fishbein (1968) found belief-based measures correlated highly at 0.8 with global attitude. However, subsequent studies have generally reported relationships of between 0.4 and 0.6 (East 1997). East (1993) has identified lack of measurement precision in attitude measures, the use of inappropriate scaling ranges for belief measures, and the inclusion of non-salient, or marginally salient beliefs, as the likely causes for the these lower correlations between belief-based and direct-global statements.

Exhibit 7.1: Degree of Concurrent Validity Reported in Leisure and Tourism Studies using either TRA or TOPB

	Zero-order Correlations	Study
Aact & $\sum$ b*e	.52	Young and Kent (1985)
	.58	Norman and Smith (1995)
	.50	Terry and O'Leary (1995)
Aact & Experiential beliefs	.37-.62	Ajzen and Driver (1991)
Aact & instrumental beliefs	.35-.54	Ajzen and Driver (1991)
SN & $\sum$ snb*mc	.67	Young and Kent (1985)
	.67	Norman and Smith (1995)
	.35-.60	Ajzen and Driver (1991)
	.46	Terry and O'Leary (1995)
PBC & $\sum$ pb beliefs	.47	Norman and Smith (1995)
	.24-.70	Ajzen and Driver (1991)

In order to provide a basis of comparison with past studies, an examination of the magnitude of correlations between belief-based (indirect) and global (direct) measures of Aact, SN and PBC

[33] Concurrent validity assesses the degree to which measures of one variable correlates with another when they both should naturally covary (Churchill 1997, Bagozzi 1981).

were undertaken for the idea and object-based museum sub-samples. However, although concurrent validity between belief-based and global measures has been traditionally assessed using raw intercorrelations, this approach does not take into account measurement error (Bagozzi 1981) and has often been based on summated composites where the relative contribution of variables has not been determined. The present study employed CFA with structural equation modelling in order to assess concurrent validity for belief-based and global components in TOPB for museum visiting. This approach is superior to zero order correlation analysis as it accounts for measurement error, and avoids the problems associated with the unweighted summation of variables (see Table 7.11)

Table 7.11: Assessing Concurrent Validity: Correlations Between Global and Belief-Based Measures of Attitude, Subjective Norms and Perceived Behavioural Control

	Idea-Based Museum	Object-Based Museum
Expectancy-Value and Global Attitude (Aact)		
Positive Intrinsic	.81***	.86***
Projective Absorption	.74***	.76**
Reflective Instrumental	.72***	.71***
Psychomotor Mindful	.45**	.52**
Dysfunctional Setting	.59***	.51***
Σ Expectancy-Value Domains	.88***	.89***
Control Beliefs and PBC		
External Time and Planning	.57***	.02
Interpersonal Situational	.34**	.002
Intrapersonal Awareness and Knowledge	.14	.08
Σ Control Beliefs	.73***	.02
Normative Beliefs and SN		
Σ Normative Beliefs	.60 **	.03

* p<.05, **p<.01, ***p<.001

7.4.1 Concurrent Validity for Expectancy Value → Aact

Table 7.11 shows the correlations between the five expectancy-value experience domains and a measure of overall global attitude, which was conceived of as the sum of experiential and instrumental attitude sub-components and was operationalised as a second-order latent variable. The model of concurrent validity was accepted in both the idea (x^2=210.93, df=108, p=.00, x^2/df=1.95, GFI=.94, AGFI=.91, TLI=.90, CFI=.92, NFI=.86, RMSEA=.07) and object-based museum sub-samples (x^2=183.63, df=91, p=.00, x^2/df=2.02, GFI=.93, AGFI=.89,

TLI=.90, CFI=.93, NFI=.87, RMSEA=.07). Further, Table 7.11 shows that in both museum sub-samples, all five expectancy-value experience domains were found to correlate highly with Aact (r=.45 to .88 and r=.52 to .86, for the idea and object-based museums respectively). For museum visits, as such, the majority of correlations between individual expectancy-value experience domains and Aact exceeded the 0.4 to 0.6 range (East 1997) reported for other studies where expectancy-value variables had been summed into a single index, providing support for the concurrent validity of global measures and experiential belief domains.

In order to provide a more direct comparison with previous studies, the five individual expectancy-value experience domains were summated into a second-order latent variable[34]. The correlation between the second-order summated expectancy-value dimension and global attitude remained highly significant at r= .88 (p<.000)[35], and r= .89 (p<.000)[36], in the idea and object museums respectively, and above those reported in previous studies.

The high degree of concurrent validity found between expectancy-value belief domains and Aact in the present study compared to those reported in previous studies is likely to be due to both model misspecification and the exclusion of measurement error in past studies. Partial support for these conclusions was found. When no account was taken for measurement error, zero order correlations between Aact, which was treated as a uni-dimensional summated construct of five semantic differentials, and a summated index of the five expectancy-value domains, where no account was taken for the dimensionality in cognitive beliefs, resulted in lower correlations in the idea (r=.58 p<.001), and object-based museum sub-samples (r=.57, p<.001), than those found in Table.7.11, where both the dimensionality and measurement error were taken into account.

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[34] A second-order latent variable accounts for the different relationship each experiential domain has with a more abstracted common factor, or 'overall expectancy-value beliefs' (the 2nd order variable), and at the same time takes account of measurement error. Second-order latent variables overcome the problems associated with multi-collinearity as they force less abstracted (first order) latent variables to be orthogonal (Bagozzi 1985).

[35] x^2=277.21, df=118, p=.00, x^2/df=2.35, GFI=.91, AGFI=.89, TLI=.86, CFI=.88, NFI=.81, RMSEA=.08

[36] x^2=239.72, df=100, p=.00, x^2/df=2.40, GFI=.90, AGFI=.87, TLI=.87, CFI=.89, NFI=.83, RMSEA=.08

7.4.2 Concurrent Validity in PBC and SN

Similar findings were reported for the concurrent validity between cognitive beliefs and direct measures of PBC and SN in the idea-based museum sub-sample (see Table 7.11). Table 7.11 shows that, when accounting for measurement error and dimensionality, direct measures of perceived control correlated significantly with external time and planning control beliefs (r=.57, p<.001), interpersonal situational control beliefs (r=.34, p<.01, x^2=68.06, df=.40, p=.00, x^2/df=1.70, GFI=.96, AGFI=.94, TLI=.89, CFI=.92, NFI=.83, RMSEA=.06), and the second order summated variable of control beliefs (r=.73, p<.001, x^2=84.00, df=.42, p=.00, x^2/df=2.00, GFI=.95, AGFI=.93, TLI=.84, CFI=.88, NFI=.79, RMSEA=.07). Further, direct measures of subjective norms were found to be positively correlated with the summation of the four referent social normative beliefs (r=.60, p<.16; x^2=13.09, df=.9, x^2/df=1.45, GFI=.98, AGFI=.94, TLI=.96, CFI=.98, NFI=.93, RMSEA=.05). However, in the idea-based museum sub-sample, the correlation between intrapersonal control beliefs and PBC was found to only be approaching significance at the p=.05 level (r=.14, CR=1.61), suggesting that there was little concurrent validity between intrapersonal control and direct measures of PBC.

Leisure constraints research (see Chapter 4) holds that intrapersonal constraints (or control) precede attitude in explaining an individual's disposition to undertake an activity (e.g. Crawford et al 1991, Henderson et al 1988). This provides a potential explanation for the lack of concurrent validity between intrapersonal control beliefs and perceived behavioural control in the present study, by suggesting that intrapersonal control may be measured within the cognitive beliefs associated with attitude, and as such is not related significantly with a direct measure of PBC. These findings echo recent observations by East (1996) who noted the difficulties in assigning cognitive beliefs to Aact, SN or PBC prior to data collection.

Overall, however, Table 7.11 shows that, for the idea-based museum, the degree of concurrent validity found in the present study for PBC was greater than had been previously reported in

leisure and recreation contexts[37] (see Figure 7.7), while the concurrent validity found in the present study for the SN was similar in magnitude to previous leisure studies[38] (see Figure 7.7). Further, and consistent with earlier findings regarding the correlations between cognitive beliefs and attitude, the present study found that correlations between belief and global measures of PBC and SN were lower when both measurement error, and dimensionality, were not accounted for in an assessment of concurrent validity ($r=.28$ $p<.05$, $r=.44$ $p<.001$ for perceived behavioural control and subjective norms respectively).

In contrast to the concurrent validity found for PBC and SN in the idea-based museum, the present study found no support for concurrent validity between beliefs and direct measures of SN or PBC in the object-based museum sub-sample[39]. At present the reason for this lack of correlation in the object-based museum sub-sample is difficult to identify, and future research is required to, firstly, examine the range and type of normative and control beliefs associated with visiting object-based museums; and, secondly, to assess whether there are more appropriate means of measuring both direct and belief-based subjective norms and perceived behavioural control that could improve concurrent validity. However, constraints research has suggested that individuals often do not perceive lack of control, and, as such, lack of control remains at below the level of consciousness, and is therefore not reported (Shaw et al 1991). Object-based museum attractions are more common than idea-based museum attractions, and respondents were likely to be familiar with this type of museum attraction. This suggests that the present lack of concurrent validity found for the object-based museum

[37] Norman and Smith (1995) report a correlation of .47 between the summated index of control beliefs and perceived behavioral control, while Ajzen and Driver (1991) reported that the correlations range from between .24 to .70 for the five recreational they examined.

[38] Both Young and Kent (1985) and Norman and Smith (1995) a higher correlation of .67 between belief based and direct measures of subjective norm than was found in the present study. However, Terry and O'Leary (1995) and Ajzen and Driver (1991) reported lower levels of concurrent validity of .46 and between .35 to .60 in each study respectively.

[39] Although the CFA models used to test for concurrent validity were found to have acceptable model fit for both SN ($x^2=6.04$, df=9, p=.74, $x^2/df=0.67$, GFI=.98, AGFI=.96, TLI=1.05, CFI=1.00, NFI=.95, RMSEA=.00) and PBC ($x^2=47.80$, df=40, p=.19, $x^2/df=1.20$, GFI=.98, AGFI=.96, TLI=.98, CFI=.98, NFI=.90, RMSEA=.03). These findings highlight that the CFA models can achieve a good level of fit and correlation estimates may not be significant.

between could be due to social structural constraints (Shaw et al 1991), or poor measurement in PBC at either a global or belief basis.

Summary and Conclusions

Substantial consideration was given, in the present Chapter, to the multiplicative combination rule suggested in TOPB for expectancy-value and normative beliefs. Particular attention was paid to the impact of the numerical scaling range in terms of the qualitative meaning associated with the belief product. It was concluded that the traditional bi-polar scaling of beliefs and evaluations used to derive expectancy-value products would result in a somewhat illogical classification of individuals, which was not helpful for market, or product, development. As such it was confirmed that a bi-polar scale (-3 to +3) would be used to measure the desirability value individuals attached to museum experiential outcomes, while an uni-polar scale (0-6) would be employed to measure perceived experiential opportunities. Normative beliefs, on the other hand, were measured in a manner consistent with the majority of other studies operationalising TRA. This scaling option was chosen because it did not allow for motivation not to comply with referents to cancel the effects of referent approval. It was concluded that this dynamic more likely reflected the effect of normative pressure, and overcame the potential sociability biases which could have occurred because of the crudeness of the measure adopted in the present study to capture an individuals motivation to comply.

The five-dimensional experience structure developed in Chapter 5 was found to describe value-contingent experiences in both the idea and object-based museums. The present Chapter confirmed that structure of value-contingent museum experience could be described in terms of five domains focused on projective-absorption, psychomotor-mindfulness, and positive intrinsic and reflective-instrumental, and dysfunctional-setting experience outcomes. Furthermore, this structure was found to be independent of the different interpretative

provisions offered by the idea and object-based museum. More pertinently, however, the effect of incorporating desirability value, with an individuals' assessment of experience opportunities available in a museum setting, was found be a stabilising influence on the 'structural dynamics' of museum experience. That is, the two museum-sub-samples were found to be equivalent in terms of both the common structures identified between value-contingent experiences, as well as the relationships observed between these experience domains, and the degree to which these experience domains loaded on the individual expectancy-value belief products. The Chapter concluded that past museum and heritage studies, which have neglected to measure the values individuals attribute to museum experiences, have been conceptually deficient, and have failed to identify the true 'nature' of museum experiences which is more able to be generalised across museum attraction types.

However, there was one notable difference between the two museums in terms of structural dynamics. As would be expected from the differing media mixes used in Old and New Museology, this Chapter found that 'using computers' was more strongly related to the psychomotor-mindfulness value-contingent expectations of respondents from the idea-based museum sample, when compared to respondents in the object-based museum sample.

This chapter confirmed that individual expectancy-value beliefs were differentially related to their respective common factors, demonstrating that expectancy-value belief domains consist of clusters of valued-belief experiences that hang together in an individuals mind, but which are not identical (Dabholkar 1994). Pertinently, these findings demonstrates that simple expectancy-value models of beliefs are inappropriate in their assumption that beliefs have an equal contribution in explaining attitudes, and which has lead to their unweighted summation. The Chapter concluded that this previous assumption that beliefs contributed equally in explaining attitude, represented a significant conceptual neglect in our understanding of the way in which information is organised into cognitive memory structures, and emphasised the likely sub-optimality that would result if unweighted summated composite were used as the basis for stage 2 modelling of the Theory of Planned Behaviour. On the basis of these findings

this Chapter raised questions regarding the current methods associated with the two-stage approach to structural equation modelling (Anderson and Gerbing 1988).

Global measures of attitude, subjective norm, and perceived behavioural control were identified in the present Chapter, and their measurement quality was assessed in preparation for their inclusion in stage 2 analysis (Chapter 8). All global measures were found to be acceptable in terms of their reliability, and were confirmed to act as parallel measures in identifying their respective latent constructs. Particular attention was given to the dimensionality of global attitude, and the chapter discussed the conceptual and predictive advantages of disaggregating attitude into experiential-process value, and instrumental-means end value, that have been found in other studies. Attitudes towards museum visiting were found to consist of two discrete dimensions, reflecting both the task-related learning value, and hedonic-value, associated with the enjoyment or pleasure of visiting, that have been noted in previous museum studies. However, experiential-process value, and instrumental means-end value, were not found to be related to specific value-contingent experiential domains, demonstrating that the nomological validity of a two dimensional belief-attitude model could not be found for museum visiting. However, the utility of Ahtola's (1985) model of general attitude, developed for experiential consumption, was described and it was concluded that this model would allow for an assessment of the relative contribution of instrumental, and experiential value in museum visiting attitudes, and was more appropriate for the present study where behavioural outcomes did not fall into discrete emotional based experiences, and goal-driven experiences.

Although rejecting the experiential and hedonic dichotomy to summarise expectancy-value belief domains, this chapter found that expectancy-value belief domains consisted of a positive and negative belief system, in common with recent studies in blood donation (e.g. Giles and Cairns 1995, Burnkrant and page 1988). Beyond improving our understanding of how information is integrated into an individuals cognitive belief structure, these findings suggested that expectancy-value belief domains may be more appropriately represented as two distinct

positive and negative beliefs systems upon which attitudes are formed. This tentative hypothesis will be explored in Chapter 8.

This Chapter identified the bases upon which intenders and non-intenders to the idea, and object-based, museum differed. Overall, while referent approval, the experience opportunities offered by museums, and the desirability value individuals attached to these experiences were found to be highly discriminating, in terms of disaggregating intenders and non-intenders, control beliefs were only found to affect museum-visiting intentions in the object-based museum. Furthermore, motivation to comply was not found to differentiate intenders and non-intenders suggesting that this may reduce the ability of the combined normative belief and motivation to comply component of TRA to predict visiting intentions. The lack of difference between intenders and non-intenders to the idea-based museum in terms of control beliefs may be a result of a general vagueness regarding the resources required to visit these attractions, which at the time of data collection were relatively uncommon in the local area.

Interestingly, this Chapter identified perceptual deterrents (or the perceived lack of experiential opportunities), as opposed to desirability value and leisure agendas, as the principal basis on which intenders and non-intenders differed in their decision-making regarding museum trips. These findings suggest that there are substantial market gains obtainable if product development, particularly in the object-based museum, is supported by targeted promotions to change the image of museums held by non-intenders. Furthermore, findings in the present Chapter suggested that the New Museology, (idea-based museum), was successful in reducing the differences between non-intenders, and intenders, in terms of the experiential opportunities they perceived in this museum setting. While these findings provide support for the aims of this orientation, which has concerned with access and cultural democracy, these findings also suggest that this will reduce the ability of expectancy-value theory to predict behavioural intention for respondents in the idea-based museum sample.

Intenders and non-intenders were found to agree that dysfunctional setting experiences were unlikely in both museum environments, suggesting that this experiential outcome may have little explanatory effect. Recent research focused on asymmetry in negative attribute evaluation was cited, and based on this it was suggested that dysfunctional-setting expectations may still serve to explain the attitudes of respondents. These ideas would be explored in Chapter 8. This Chapter also identified psychomotor-mindfulness experience opportunities as a necessary, but not sufficient condition to explain museum visiting intention, highlighting that, particularly in the object-based museum, these psychomotor-mindfulness experiences may have little explanatory power. These conclusions are perhaps not surprisingly, as psychomotor mindfulness opportunities were described, in Chapter 5, as characteristics attributes and at a lower level of cognitive abstraction than the other experiential domains measured in the five-dimensional model.

Generally, intenders and non-intenders reported time and planning resource allocation problems, which may reflect either excuses or lethargy in terms of visiting, or suggest that museum attractions need to reconsider their opening times in order to accommodate the time and planning needs of both visitors, and non-visitors. However, and as might be expected, non-intenders reported self-efficacy knowledge (intra-personal) constraints in terms of visiting the object-based museum. In contrast, intrapersonal knowledge constraints were largely overcome by non-intenders in the idea-based museum, providing further support for the success of The New Museology in meetings its aims, and suggesting that object-based museums need to concentrate resources into improving the confidence, or self-efficacy, non-visitors perceive in this museum environment. Furthermore, non-intenders to the object-based museum were found to be 'doubly' constrained. Non-intenders to the object-based museum were significantly less likely, than intenders, to have someone to visit with, and also required substantial situational stimulus to encourage visiting. However, this Chapter also noted that differences between intenders and non-intenders in terms of control beliefs were generally weak, suggesting that the ability to control to explain visiting intentions may be found to be significant when testing TOPB, but will not be substantial. Further research is required to

substantiate whether this is due a failure to capture the important dimensions of constraint/control experienced by respondents, or whether perceived control has little role to play in furthering our understanding of museum visiting intentions.

Concurrent validity between global and belief-based measures of attitudes, subjective norms and perceived behavioural control was confirmed in the idea-based museum sample, but could not be established for direct and indirect measures of perceived behavioural control and subjective norms in the object-based museum sub-sample. These findings were primarily used to provide a basis of comparison with recent studies in leisure and exercise behaviour. It was confirmed that the concurrent validity found indirect and direct measures of Aact, SN and PBC in the idea-based museum, and Aact in the object-based museum, equalled, or exceeding those reported elsewhere. An assessment of concurrent validity was required in order to allow for some basis of comparison between the present study and other expectancy-value research in related areas, which have relied on OLS regression and correlation. However, this assessment of concurrent validity served to demonstrate the problems associated when multi-dimensional constructs, which are inappropriately summated (model misspecification), and where no account was taken for measurement error. The present chapter found the correlations observed between direct and indirect measures fell when the belief domains were aggregated and no account was taken for measurement error.

Overall, this Chapter has served as the final part of stage one analyses, in the two-stage modelling approach adopted. Overall, in evaluating the measurement properties of belief-based and global measures of Aact, SN and PBC, this Chapter and Chapters 4, 5, and 6, have confirmed the supportive measurement results required for variables to be summated into weighted (belief-based measures) and unweighted (global) measures which can be used as the basis of stage 2 modelling and a formal assessment of the predictive and nomological validity of TOPB.

Chapter 8: Testing the Theory of Planned Behaviour to Explain Museum Visiting Intentions

Introduction

The preceding Chapters in this study have examined in detail the belief-bases and global measures of the attitude, subjective norm and perceived behavioural control components of TOPB (see Figures 1.1, Chapter 1). This has been achieved both formally, through an assessment their convergent validity, reliability and concurrent validity, and by relating the findings of the present study to previous studies in museum, leisure, tourism and other experiential consumption. As such, the findings reported so far represent *stage one* in the two-stage modelling approach adopted (see Chapter 2, section 2.3.2.2(b)). *Stage one* analyses will serve, in the present Chapter, as the measurement basis for *stage two* 'full structural modelling', and the final objective of the present study aimed at assessing the ability of TOPB, to explain visiting intentions to idea or object-based museum attractions within a 12 month period. This aim is equivalent to an assessment of the predictive, or more broadly, the nomological validity of the constructs measured in TOPB as applied to museum visiting intentions.

Specifically, nomological validity is an assessment of the degree to which predictions or hypotheses regarding the relationships between constructs in a formal theoretical network are confirmed (Bagozzi 1981). Predictive validity, or criterion validity, on the other hand is narrower in scope, and is concerned with the degree to which one variable or construct is able to predict or can be predicted by another variable or construct (Churchill 1996)[1]. For example, the ability of expectancy-value experience domains to predict *Aact* represents an assessment of predictive validity, while an assessment of the appropriateness of TRA, or

[1] Bagozzi (1981) distinguishes between these two types of validity stating that *"predictive validity entails the relationship of measures of a variable to a single antecedent or consequent. Nomological validity, in contrast, involves many antecedent s and/or consequence in a complex system"* (Bagozzi 1981, p327).

TOPB, as networks of variables related in a specified structure represents an assessment of the nomological validity of these models for modelling museum visiting intentions.

To summarise, this Chapter will detail the explanatory ability of TOPB for museum visiting intentions in terms of the amount of variance explained in intentions by Aact, SN and PBC. Furthermore, this Chapter will examine the relative effects of Aact, SN and PBC on intentions in order to assess the assumptions of 'experience-based management' to concentrate on expectancy-value alone, and the potential contributions of leisure constraints research, and studies of perceived behavioural control, to increase our understanding of museum visitation among middle-class residents.

Further, this Chapter employs Bagozzi's (1985) six generic expectancy-value model structural-types as a framework (see Chapter 1, Exhibit 1.1) to demonstrate the *conceptual* and *methodological* (measurement) rationale for adopting a *summated-complex-interactive* approach in the assessment of nomological validity for TOPB for museum visiting intentions. To demonstrate the conceptual and methodological advantages of the *summated-complex-interactive model* advocated in this study, the predictive and nomological validity of the *summated-complex-interactive model* will be compared to the *summated-simple-interactive* model traditionally used in expectancy-value research. These analyses will demonstrate the importance of assessing the structural complexity of cognitive beliefs, and of taking account for error in their measurement, in order to provide unbiased parameter estimates in modelling museum visiting intentions, and enable a valid assessment of nomologically validity.

In addition, the present Chapter provides a thorough demonstration of the utility of structural equation modelling (SEM) in an examination of the ability of TOPB to explain the *'dynamics'* of Aact, SN and PBC in explaining museum-visiting intentions. The Chapter illustrates the ability of SEM to account for both direct and indirect measures of Aact, SN and PBC simultaneously. This in turn allows for a thorough assessment of the

nomological validity of TOPB for museum-visiting intentions. In particular it allows for an assessment of:

- the ability of direct measures to mediate the effects of cognitive beliefs on intentions;
- the ability of 'external' variables, including past behaviour, to add significant explained variance to visiting intentions when added to Aact, SN and PBC;
- the moderating effects of past experience, gender and perceived behavioural control on the relative impact of Aact, SN and PBC on visiting intentions.

8.1 Assessing the Nomological Validity of TOPB for Museum Visiting Intentions

Figure 8.1 presents the model of TOPB (Model A) which was examined for nomological validity and it's ability to predict museum-visiting intentions. The model is generally representative of the Type III (summated-molecular-complex interactive) model proposed by Bagozzi (1985), where measurement coefficients for the weighted (belief-based), and unweighted (global or direct measures) summated indices were constrained to the square root of their reliability, and their corresponding error coefficients were constrained to one minus their scale reliability. Further, Figure 8.1 shows that the five summated indices of expectancy-value beliefs domains, three indices of control belief domains and the two indices derived to represent global attitudes (experiential and instrumental) in Model A (Figure 8.1), were measured as second order latent variables so as to avoid the problems associated with multi-collinearity. However, the four social normative beliefs measured in the present study were not summated into a single summary variable because such aggregation, although appropriate for a confirmed uni-dimensional construct, would not account for the correlated error variables corresponding to the social normative beliefs respondent associated with children and partners.

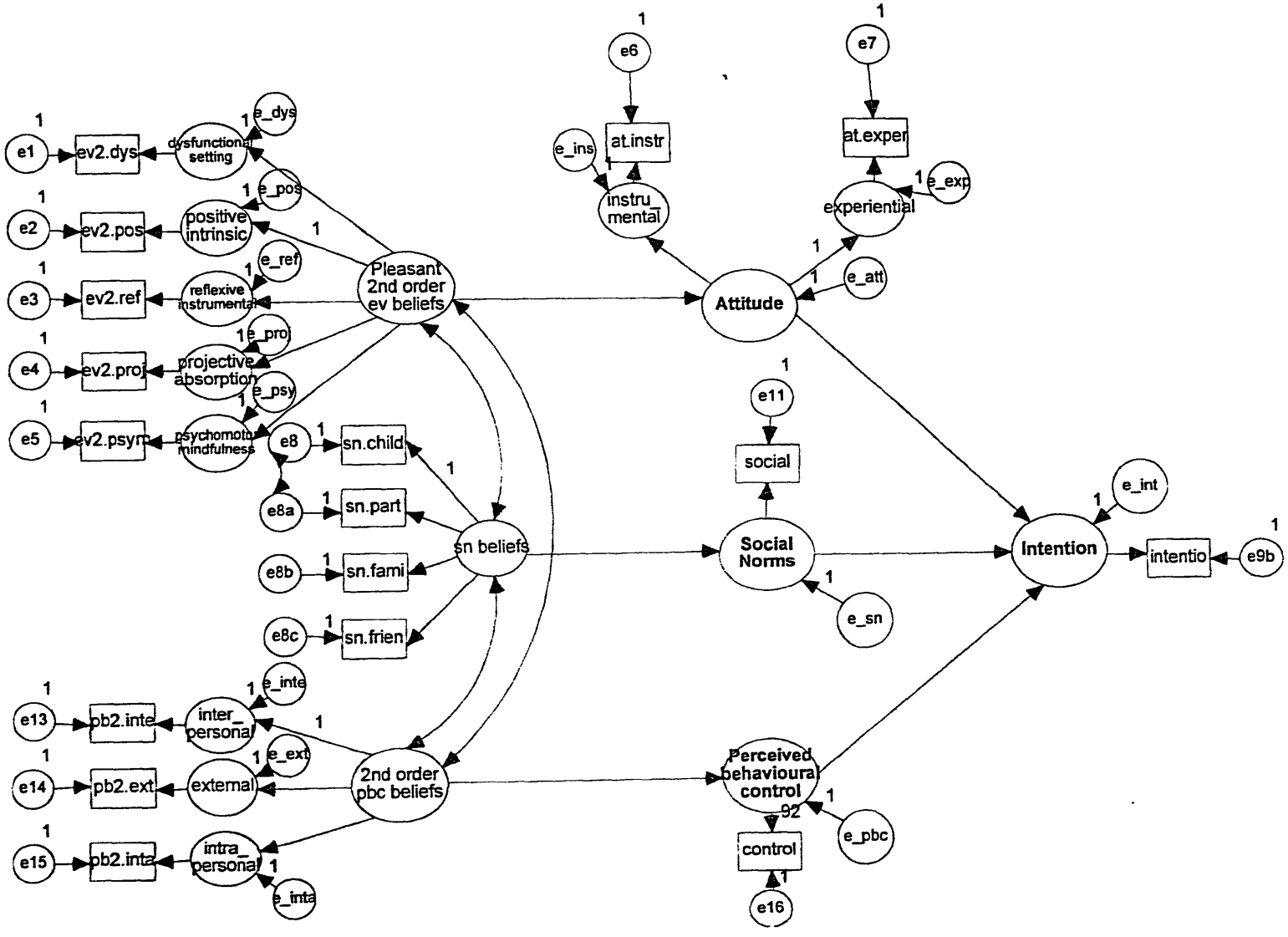

Figure 8.1: **Model A: The Theory of Planned Behaviour Modeled with Complex-Summated- Interactive Beliefs**

Separate analyses were performed on the idea and object-based museum sub-samples so that goodness-of-fit measures could be used to assess each museum separately. Asymptomatic distribution free estimations were employed as the data did not achieve multivariate normality in either the idea (Mardia's coefficient = 23.160, CR=6.443) or object-based museum sub-samples (Mardia's coefficient = 17.567, CR=4.887).

8.1.1 Initial Model Fit

An initial iteration of Model A was not found to achieve acceptable fit in either the idea (x^2=375.32, df=112, p<.000, x^2/df=3.35, GFI=.92, AGFI=.89, TLI=.76, CFI=.81, NFI=.75, RMSEA=.11) or object-based museum sub-samples (x^2=402.61, df=112, p<.000, x^2/df=3.59, GFI=.94, AGFI=.92, TLI=.66, CFI=.72, NFI=.66, RMSEA=.11). Although, absolute goodness of fit measures (GFI and AGFI) identified that Model A (Figure 8.1) could be marginally accepted, incremental goodness-of- fit indices suggested that the models could be improved substantially. The Chi-square to degrees of freedom ratio was high at above 0.3 and the root mean square error of approximation was above the acceptable level of .08, in both museum sub-samples. Furthermore, the path estimate from expectancy-value beliefs to global attitude was unacceptably high at .98 in the idea-based museum sub-sample, suggesting that Model A was misspecified in terms of the relationship between expectancy-value beliefs and attitude.

8.1.2 Correcting Model Misspecification

Earlier principal component analyses identified potential dimensionality among expectancy-value beliefs domains associated with positive-pleasant and negative-unpleasant valued-expectations (see section 7.3, Table 7.9). In order to correct model misspecification, the five expectancy-value domains were disaggregated in terms of positive-pleasant and negative-unpleasant belief systems (Model B, Figure 8.2), in common with other recent studies (Burnkrant and page 1988, Dabholkar 1994, Giles and Cairns 1995). As such, in

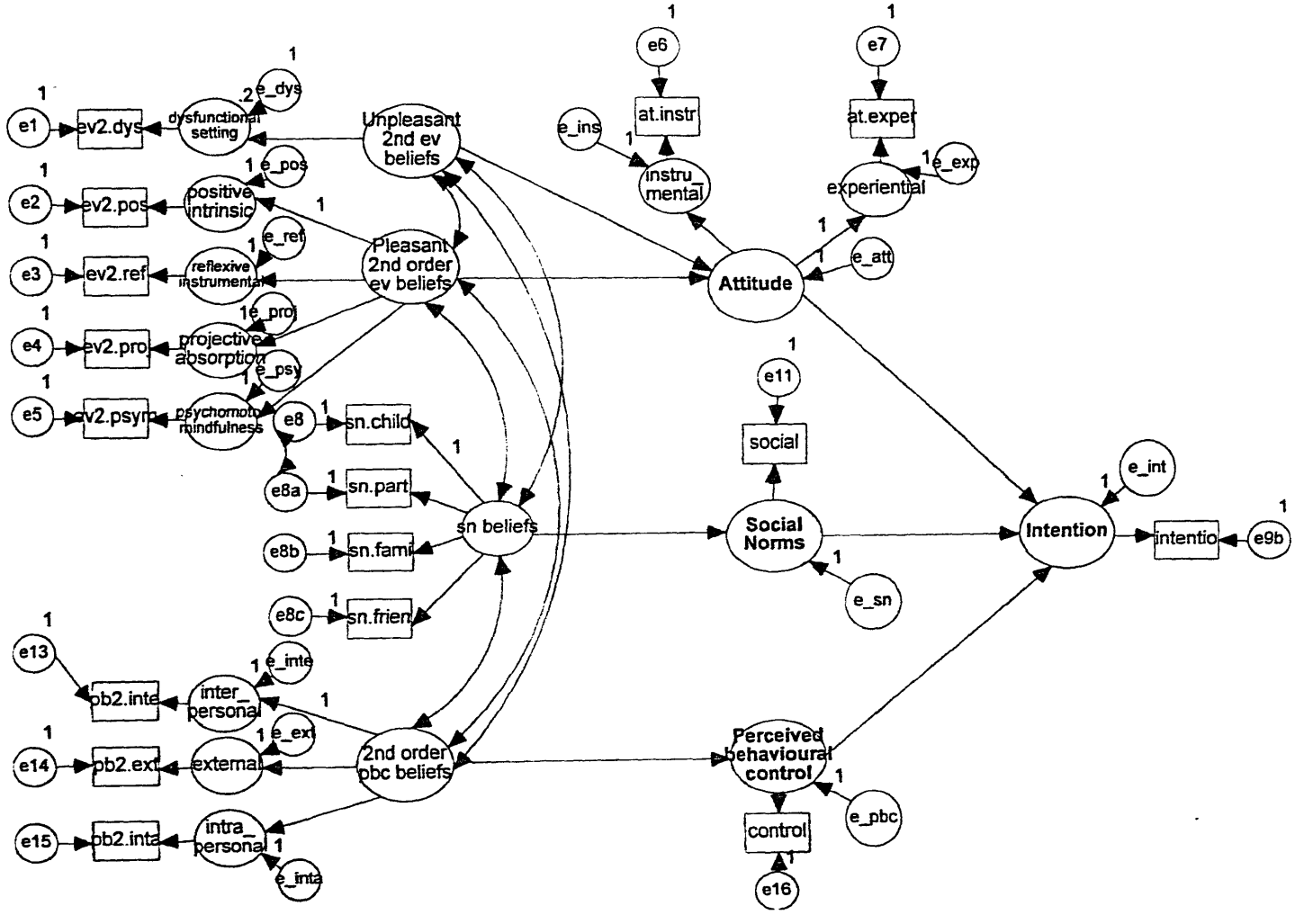

Figure 8.2: **Model B: The Theory of Planned Behaviour Modeled with Complex-Summated- Interactive Beliefs and with Positive and Negative Belief System in Expectancy-Value Attitudes**

Model B (see Figure 8.2), expectancy-value domains were represented by two second-order latent factors (Maruyama 1998), *pleasant* and *unpleasant* [2] expectancy-value beliefs.

In both the idea and object-based museum sub-samples, Model B was found to achieve a significantly better fit, in accounting for the relationship between observed and hypothetical sample correlations, than was found for Model A. In both museum sub-samples there were significant falls in Chi-square values ($x^2/2=55.41$ df/2=3 $p<.000$[3] in the idea-based museum, and $x^2/2=65.69$, df=3, $p<.000$[4] in the object-based museum), as well as increases in absolute (GFI=.93, AGFI=.91, $x^2/df=2.93$, RMSEA=.10 in the idea-based museum; GFI=.95, AGFI=.93, $x^2/df=3.09$, RMSEA=.10), and incremental fit indices (TLI=-.81, CFI=.84, NFI=.79 in the idea-based museum, TLI=.73, CFI=.78, NFI=.71 in the object-based museum). Further, the amount of variance explained in intention (R^2) increased from .36 to .46 in the idea-based museum, and .70 to .78 in the object-based museum sample. Together, these findings provide support for the pleasant and unpleasant dichotomy of expectancy-value beliefs. However, incremental measures of fit remained below the required .90 level suggesting that Model B could be significantly improved.

8.1.3 Looking for Ways to Improve Model B

Many structural equation-modelling studies have only examined absolute goodness-of-fit in evaluating models. Early studies, for example, relied primarily on Chi-square (e.g. Bagozzi 1981, Bentler and Speckart 1981), while more recent studies, having recognised the problems associated with chi-square for large samples, or complex models, have relied on other absolute measures of fit, including GFI, AGFI, x^2/df and RMSR or RMSEA (e.g. McGoldrick and Pieros 1988, Selnes 1988). As such, only a handful of previous

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[2] However, because the negative-unpleasant second order factor loaded significantly on only dysfunctional setting valued-expectations domain, the unpleasant second order latent dimension was judged to have to have a reliability of .80, rather than presuming perfect measurement (e.g. McGoldrick and Pieros 1998), and so as to account for measurement error, and potential omissions of first order-latent dimension on this construct.

[3] $x^2/2=375.32-319.86$, df=112-109

[4] $x^2/2=402.61-336.69$, df=112-109

expectancy-value studies exist that have employed a broad range of goodness of fit indices, as can be found in the present analysis (e.g. Ryan 1982, Shimp and Kavas 1984, Bagozzi and Kimmel 1995 and Giles and Cairns 1995), and to which a comparison of incremental fit indices achieved for expectancy-value models can be made. Of these studies, however, only Ryan (1982) and Shimp and Kavas (1984) examined the nomological validity of the total TRA framework, and looked at both direct and indirect measures of attitudes and subjective norms[5]. Both Ryan (1982) and Shimp and Kavas (1984) accepted their respective proposed models based on absolute and incremental goodness of fit measures equal to or above their respective recommended thresholds (.90). As such, these studies provide useful bases from which to compare the present study and examine model modifications to improve capable of improving Model B.

a) Problems of Multi-collinearity: The Direct Combined Effects of Belief Domain on Direct Measures of Aact and SN

Shimp and Kavas (1984)[6], in contrast to the present study, did not employ second-order factors in modelling their complex molar model. Instead, Shimp and Kavas (1984) allowed the three expectancy-value dimensions to have direct and combined effect on Aact, and the two dimensions of normative beliefs to have direct and combined impacts on SN. As such, their model is an example of a Case II model discussed by Bagozzi (1982), and suffers from potential contamination effects associated with multi-collinearity (see Chapter 1, section 1.2.2).

It was decided to examine if the high levels of incremental fit observed by Shimp and Kavas were due to the different relationships between belief and global measures employed in their study. As such, first-order expectancy-value and control belief domain were allowed to directly predict Aact and PBC, respectively (Model C). Model C achieved acceptable

[5] Whereas, many studies have only examined nomological validity of global measures (e.g. Bagozzi and Kimmel 1995).

[6] Burnkrant and Page (1998) allowed global measures to be regressed directly on expectancy-value and normative belief structures and as such did not account for multi-collinearity in the model.

absolute and incremental measures of fit in the idea-based museum sub-sample (x^2=174.79, df=81, p<.000, x^2/df=2.16, GFI=.96, AGFI=.93, TLI=.88, CFI=.93, NFI=.88, RMSEA=.08), while in the object-based museum sub-sample absolute measures of fit were good, and incremental measures of fit were high and approaching the desired .90 level (x^2=201.84, df=95, p<.001, x^2/df=2.47, GFI=.95, AGFI=.92, TLI=.85, CFI=.90, NFI=.84, RMSEA=.09). These findings suggest that the lower levels of incremental fit in Model B may be due to the use of second-order latent variables, proposed by Bagozzi (1985) to reduce the contaminating effects of multi-collinearity. Further, these findings show that, when no account was taken for the impact of multi-collinearity, the structural model associated with TOPB achieves an equivalent magnitude of fit as that validated by Shimp and Kavas (1984). However, concerns regarding the contaminating effects of multi-collinearity lead the present study to reject model Model C. It was decided instead to retain Model B and to determine if the model could be improved by some alternative model modifications.

b) Common Method Variance

In his study, Ryan (1982) identified common method variance[7], associated with the use of similar adjectives, and semantic differential scales, to measure both global and belief-based Aact and SN, as the reason for the lack of acceptable incremental model fit on an initial iteration of his cross-over effects model in TRA. The present study similarly tested for common method variance. The modification indices for Model B were examined in order to identify if allowing the correlation between the residual-error variables among those variables measured using the semantic differential, and among those variables measured using Likert scaling, would significantly improve model acceptability. Seventeen correlations between error variables were identified in the idea-based museum and eight correlations between error variables were identified in the object-based museum sub-sample. In common with Ryan (1982) these error variables were allowed to correlate (Model B2).

Allowing error variables to correlate in Model B2 resulted in significant model improvements from Model B. In the idea-based museum sub-samples, Model B2 was found to be acceptable based on absolute (x^2=202.28, df=92, p<.000, x^2/df=2.20, GFI=.96, AGFI=.93, RMSEA=.08) and incremental goodness of fit measures (TLI=.88, CFI=.92, NFI=.86). In the object-based museum sub-sample Model B2 was accepted based on absolute measures of fit (x^2=237.53, df=101, p<.000, x^2/df=2.35, GFI=.97, AGFI=.95, RMSEA=.08), and marginally accepted based on incremental measures (TLI=.82, CFI=.87, NFI=.80), which, falling slightly below the required .90 level suggested that Model B2 could still be further improved. Further, and in common with Ryan (1982), Table 8.1 shows that there was little change in the parameters estimates between Model B and Model B2 (where error variables were allowed to correlate), particularly in the idea-based museum. These latter findings providing support for the presence of common method variance in Model B (see Ryan 1982).

Overall these findings tentatively suggest that the lack of incremental fit identified for Model B are likely to be the result of common method variance. As such, Model B2 was accepted as an appropriate model of visiting intentions, where the effects of common method variance had been taken into account. Additional support for the presence of common method variance will be noted subsequently where analyses will show that the overall interpretation of the structural model and explained variance in intention remains the same when modelling with or without correlated residual-error variables.

[7] To account for common method variance Ryan (1982) allowed fifteen measurement errors associated with constructs in the model to correlate. This resulted in a significant improvement in overall model fit with few large changes in structural parameter estimates.

Table 8.1: Structural Results for Model B and Model B2

		Model B		Model B2	
		Standardised Coefficients (β)	Critical ratios	Standardised Coefficients (β)	Critical ratios
Idea-Based Museum					
Exogenous Paths	Pleasant EV Beliefs ➡ Aact	.72	*8.84*	.74	*9.16*
	Unpleasant EV Beliefs ➡Aact	.19	*2.76*	.14	*2.02*
	Normative Beliefs ➡SN	.44	*8.27*	.51	*8.12*
	Control Beliefs ➡PBC	.40	*7.04*	.29	*4.15*
Endogenous Paths	Aact ➡ Intention	.59	*7.75*	.59	*8.14*
	SN ➡ Intention **	.12	*3.53*	.07	*1.81**
	PBC ➡ Intention	.22	*4.79*	.20	*3.76*
Object-Based Museum					
Exogenous Paths	Pleasant EV Beliefs ➡ Aact	.42	*5.89*	.62	*9.94*
	Unpleasant EV Beliefs ➡Aact	.45	*7.23*	.28	*5.51*
	Normative Beliefs ➡SN	.00	*0.06**	.01	*0.20**
	Control Beliefs ➡PBC	.78	*3.19*	.51	*3.46*
Endogenous Paths	Aact ➡ Intention	.84	*12.98*	.79	*13.29*
	SN ➡ Intention	.05	*1.27**	.19	*1.84**
	PBC ➡ Intention	.13	*3.17*	.11	*2.72*

* Not significant

** This is the only parameter where a change from statistical significance to non-significance was found when comparing Model B to Model B2

Briefly, Table 8.2 contains a summary of the measurement diagnostics for the second-order latent variables in Model B and Model B2.

Table 8.2: Measurement Models for Second-Order Factor Models

	Model B				Model B2			
	Standardised Coefficients (β)	Individual Reliability	Composite reliability	Average Variance Extracted	Standardised Coefficients (β)	Individual Reliability	Composite reliability	Average Variance Extracted
Idea-Based Museum								
Aact ➡Experiential	.60 [a]	.36	.51	.34	.65 [a]	.63	.56	.39
Aact ➡Instrumental	.57 ***	.32			.59***	.21		
Pleasant EV ➡ Positive Intrinsic	.79 [a]	.63	.79	.49	.76 [a]	.85	.77	.46
Pleasant EV ➡ Reflective Instrumental	.73 ***	.54			.74 ***	.26		
Pleasant EV ➡ Projective Absorption	.78 ***	.61			.66 ***	.46		
Pleasant EV ➡ Psychomotor	.45 ***	.21			.51***	.17		
Control Beliefs ➡ Interpersonal	.84 [a]	.70	.61	.37	.78 [a]	.03	.51	.29
Control Beliefs ➡ External	.47***	.22			.36 ***	.17		
Control Beliefs ➡ Intrapersonal	.42***	.17			.37 ***	.05		
Object-Based Museum								
Aact ➡Experiential	.79 [a]	.42	.57	.41	.74 [a]	.55	.52	.37
Aact ➡Instrumental	.45 ***	.35			.43 ***	.18		
Pleasant EV ➡ Positive Intrinsic	.92 [a]	.57	.74	.44	.86 [a]	.74	.72	.41
Pleasant EV ➡ Reflective Instrumental	.51***	.55			.52 ***	.27		
Pleasant EV ➡ Projective Absorption	.68 ***	.43			.69 ***	.47		
Pleasant EV ➡ Psychomotor	.41 ***	.26			.34 ***	.12		
Control Beliefs ➡ Interpersonal	.16 [a]	.61	.19	.08	.26 [a]	.07	.27	.12
Control Beliefs ➡ External	.41 ***	.13			.49 ***	.24		
Control Beliefs ➡ Intrapersonal	.23 ***	.14			.23 ***	.05		

*p<.05, **p<.01, ***p<.001, a =where parameter fixed to 1.0

For all second-order measurement models, except control beliefs in the object-based museum, Table 8.2 confirms that the measurement models were acceptable. All second-order latent variables were found to load significantly on their first-order sub-components ($p<.001$) and, as shown by both composite construct reliability, and average variance extracted indicators, measurement reliability was marginally acceptable within the exploratory context of the present study. Clearly, in moving to a higher level of abstraction associated with second-order latent constructs, and forcing belief domains to be orthogonal in order to eliminate multi-collinearity among common belief types, additional measurement error was introduced into Models B and B2. In particular, Table 8.2 highlights the lower levels of composite and variance extracted measures of reliability for second-order variables, compared to the reliability observed for first-order latent constructs in Chapters four (control beliefs), five (likelihood beliefs), six (evaluation) and seven (expectancy-value and attitude). Previous studies, where second-order latent construct have been employed, have not been concerned with or have measured the reliability of these constructs (e.g. Bagozzi 1983, 1982, 1981). In contrast, the present study has demonstrated that the cost of avoiding the confounding effects of multi-collinearity by forcing common belief types to be independent, is a fall in the reliability of the measurement model associated with second-order latent constructs. Further, these findings provide some additional support for these results reported for Model C (see section (a) above) where it was suggested that higher degree of overall fit could be obtained for complex models when multi-collinearity in the belief domains was not taken in account (see for example Shimp and Kavas 1984).

Beyond the general lower levels of construct reliability found for second-order latent variables in Model B and Model B2, there was some concern regarding the low levels of reliability found for the joint effects of interpersonal, external and intrapersonal control beliefs when measured as a second-order latent variable in the object-based museum (see Table 8.2). The present analysis found that for both Model B2 and Model B, control beliefs had unacceptably low composite construct reliabilities and average variances extracted,

demonstrating that the second-order variables explained very little of the variance in interpersonal, external and intrapersonal control beliefs. These findings further suggested that if the analysis of structural parameters (see section 8.1.6) revealed that control beliefs were poor predictors of global PBC, this may be due in part to poor measurement or conceptualisation of overall control beliefs as a second order latent construct.

c) Parallel Measurements in Second-Order Belief Domains

The measurement models for second-order belief latent variables associated with pleasant expectancy-value beliefs and control beliefs were assessed to determine whether a constrained model, where the factor loadings on first order latent domains were equal, was superior to the unconstrained model, where factor weightings were freely estimated. This analysis complements earlier concerns expressed regarding the use of unweighted summated models. In particular, in Chapter 7 (see sections 7.3.3.2) it was shown that for the five expectancy-value belief domains, three control belief domains and the normative belief domain, the assumption of equal weightings was rejected. The present analysis extends this hypothesis to an examination of second-order factor models.

In Model B2 the hypothesis of equal factor weightings in the control beliefs and pleasant expectancy-value second-order latent dimensions was rejected in both the idea ($x^2/2=286.23$, $df/2=10$, $p<.000$[8]) and object-based museum sub-samples ($x^2/2=295.06$, $df/2=10$, $p<.000$[9]), providing support for the similar findings of Ryan (1982), who examined first-order latent models. The inability to accept a hypothesis of equal factor weightings in beliefs domains extended to Model B, where no account had been taken for common method variance ($x^2/2=304.18$, $df/2=10$ $p<.001$[10], and $x^2/2=361.08$ $df/2=10$ $p<.001$[11], in the idea and object-based museums respectively). Together, these results suggest that Model B2 and Model B

[8] $x^2/2= 488.51 - 202.28$, $df/2 = 102 - 92$
[9] $x^2/2=532.58 - 237.53$, $df/2 = 111-101$
[10] $x^2/2=624.04 - 319.86$, $df/2=119-109$
[11] $x^2/2=698.007-336.92$, $df/2=119-109$

could not be improved by constraining factor weighting in second-order models to be equal. Furthermore, the present findings build on earlier conclusions, in section 7.3.3.2 to stress that the traditional assumption of an unweighted summated model for beliefs in TRA and TOPB is inappropriate for museum visiting at levels of abstraction associated with both second-order latent dimensions, and first-order latent dimensions (section 7.3.3.2). Therefore, the findings of the present study provide support for the conceptual deficiencies for the totally aggregated (Type I, see Exhibit 1.1) Fishbein and Ajzen model where an equal contribution for beliefs is assumed, and not tested (1985).

8.1.4 Identifying Key Decision Criteria in Museum Visiting Intentions

a) Expectancy-Value Belief Domains

Table 8.2 shows that parameters relating pleasant expectancy-value (second order latent variable) to its respective four sub-dimensions (positive intrinsic, reflective instrumental, projective absorption and psychomotor mindfulness first-order latent variables) were statistically significant ($p<.001$) for both Models B and B2 in the idea and object-based museum sub-samples. Interestingly, as shown by the factor weightings, positive intrinsic perceived consequences were found to be the dominant decision criteria in the object-based museum ($\lambda_{positive\text{-}intrinsic}$ =.92, compared to $\lambda_{projective\text{-}absorption}$=.68, $\lambda_{reflective\text{-}instrumental}$=.51, $\lambda_{psychomotor\text{-}mindfulness}$=.41). In contrast, positive-intrinsic (λ=.79), projective-absorption (λ =.78) and reflective-instrumental (λ =.73) perceived consequences were found to be the significant decision criteria, and of more or less equal weight, in the idea-based museum. However, although a psychomotor-mindfulness expectancy-value beliefs were found to be a significant component of pleasant expectancy-value judgements, the domain of psychomotor mindfulness expectancy-value beliefs were found to have only a modest contribution in the formation of pleasant expectancy-value judgements in both styles of museum attractions (λ =.45 and λ =.41 in the idea and object-based museums, respectively).

Together, these findings suggest that, for both museum attractions, characteristic attributes (Lefkoff-Haguis 1993) associated with the museum setting (i.e. psychomotor-mindfulness) are not as important in forming an overall expectancy-value judgement regarding pleasant museum experiences compared to the more abstract functional or imagery attributes associated with positive-intrinsic, projective-absorption, and reflective-instrumental valued-experiences. Furthermore, the composition of second-order pleasant expectancy-value judgements found in the idea, and object-based, museums provided some support for the hierarchical nature of demand, expressed in leisure science in The Manning-Haas Hierarchy of Demand (e.g. Manfredo et al 1996, Prentice 1993b, Manning 1985), where setting attributes (psychomotor mindfulness) are seen as a means of achieving more a range of immediate experiential experiences, or leading to the fulfilment of longer terms reflective-instrumental goals.

b) Control Belief Domains

In terms of overall control beliefs, Table 8.2 shows that in both museum sub-samples the parameters relating the second-order latent variable 'overall control beliefs' to its respective three sub-dimensions were statistically significant ($p<.000$), although weak in the object-based museum. Interestingly, in the idea-based museum interpersonal situational control beliefs ($\lambda = .84$) were dominant relative to the impact of external ($\lambda = .47$), and intrapersonal ($\lambda = .42$) control beliefs in their motivational contribution to the impact of 'overall control beliefs'. In contrast, external time and planning resources were found to be dominant ($\lambda = .41$) in terms of the motivational implications of perceived resource control relative to the weaker contributions of intrapersonal ($\lambda = .23$) and interpersonal ($\lambda = .16$) control to overall control beliefs in the object-based museum. These findings reflect the situational impetus (interpersonal control) associated with both museum visiting as holiday activities (see Chapter 3), and the lower levels of supply of idea-based museum attractions locally in Edinburgh at the time of data collection. Further, these findings suggest that for the more

traditional object-based museums, time and planning resources were dominant in their motivational effect on museum visiting intentions.

c) Global Attitudes

Looking at the measurement model for direct measures of overall attitude in both museum, it can be seen that *'overall Aact'* was found to be significantly related to its experiential and instrumental sub-components ($p<.001$, see Table 8.2). However, measures of composite reliability (.56 and .52 for Model B2 in each museum), and average variance extracted (.39 and .37 for Model B2 in the idea and object sub-samples), show that the model can only be marginally accepted, and that future research concentrated on improving the reliability of the two-dimensional attitude model proposed by Ahtola (1985) is required. The disappointingly low reliability for the second-order 'overall Aact' variables can be attributed to the low individual reliability associated with instrumental attitudes (.21 and .18 for Model B2 in the idea and object-based museum samples respectively).

However, and pertinent for our understanding of the differences between the two museum attraction styles, the two museums were found to differ in terms of the relative contribution of experiential and hedonic value to overall attitudes. In both types of museum attraction, experiential value was found to be more prominent in the composition of overall attitudes than instrumental value, as measured by standardised coefficients, providing support for the leisure and hedonic contexts associated with museum visits (see Table 8.2). However, instrumental value was found to be much higher in the idea-based museum (λ =.59), than in the object-based museum (λ =.43), and in addition instrumental value was found to be only slightly lower than the contribution of experiential attitude (λ =.65) in the idea-based museum. These findings suggest that the interpretative environment associated with the

idea-based museum offers an 'equal' balance of experiential and instrumental value in anticipated museum visits, whilst the object-based museum was found to offer significantly less instrumental value. Tentatively, these findings conclude that the idea-based interpretative style is able to offer instrumental value beyond that offered by traditional object-based museums, and, based on the research design employed in the present study, it seems that these differences can be attributed to the differing orientations of The New and Old Museology. The New Museology has been criticised for providing a disneyfied and purely hedonic environment. The present findings, in contrast, suggest that respondents perceived this type of museum as offering greater instrumental value than is found in the object-based museum and the scholarly view of exhibition management (Miles 1986).

Having achieved acceptable measures of global model fit, and examined the measurement models for Models B and B2, the following section turns to an examination of the structural parameters which link indirect and direct measures of Aact, SN and PBC with visiting intentions. This represents the first step in establishing the nomological validity of TOPB for predicting museum-visiting intentions.

8.1.5 Validity of Structural Parameters in TOPB

a) Expectancy-value beliefs ➡ Aact

Looking in detail at the structural parameters for Model B2 *(and Model B)* in Table 8.1 it is clear that, consistent with expectancy-value theory, pleasant and unpleasant beliefs were statistically significant determinants of attitudes towards visit in both the idea (ß *pleasant* =.74 p<.001*(ß=.72, p<.001)*; ß *unpleasant* = .14, p<.05 (ß=.19, p<.05)), and object-based museums (ß *pleasant* =.62 p<.001*(ß=.42, p<.001);* ß *unpleasant* = .45, p<.001 *(ß=.28, p<.01)*). Together, pleasant and unpleasant second-order expectancy-value domains accounted for 62% (61%) of explained variance in attitudes in Model B2 *(Model B)* in the idea-based museum, and 54% (51%) of the explained variance in attitudes in the object-based museum.

As suggested in earlier analyses in Chapter 7 (section 7.1.1), unpleasant expectancy-value beliefs had less impact on attitudes towards museum visiting than pleasant attitudes, in both the idea and object-based museums. However, as would be expected, unpleasant expectancy-value beliefs had a stronger role in predicting attitudes towards visiting the object-based museum (ß =.28, p<.001 for Model B2; *ß =.45, p<.001 for Model B*), compared to attitudes towards visiting the idea-based museum (ß =.14, p<.01 for Model B2; *ß =.19, p<.0 for Model B*). These findings provide further support for the superiority of the New Museology, and the idea-based museum, for overcoming some of the perceptual deterrents associated with museum visits.

b) Control Beliefs ➡ PBC

Similarly, and consistent with TOPB, control beliefs in Model B2 *(Model B)* were found to be statistically significant determinants of PBC in both the idea (ß =.29 p<.01*(ß=.40, p<.001))*, and object-based museums (ß =.51 p<.05 *(ß=.78, p<.05)*). However, the amount of variance explained in PBC by control beliefs was lower than that previously noted for attitudes, with only 8% of the variance in PBC being explained by control beliefs in Model B2 *(16% in Model B)* in the idea-based museum. In the object-based museum, control beliefs were found to account for a greater proportion of explained variance in PBC (R^2= 26% and 60% for Models B2 and B respectively). Together, these findings suggest that there is only weak support for the predictive relationship between belief-based and direct measures of PBC in both museum sub-samples.

c) Normative Beliefs ➡ SN

In terms of subjective norms, Table 8.1 shows that the relationship between normative beliefs and SN hypothesised in TRA could only be supported in the idea-based museum sample (ß=.51 and ß=.44 in Models B2 and B respectively), where 26% (20%) of the variance in subjective norms was explained in Model B2 (Model B). In contrast, in the object-based museum sample, that there was no significant effect for normative beliefs on

SN. These findings show that when accounting for the effects of direct and indirect measures of Aact and PBC, there was little support for predictive validity between normative beliefs and subjective norms. These findings highlight that there either has been an omission of important referents; that subjective norms have been measured too crudely; or that there is a lack of distinction between normative beliefs and expectancy-value, or control beliefs.

8.1.6 Ability of Aact, SN and PBC to Predict Museum Visiting Intentions

It has been acknowledged already in this study that multi-collinearity among predictor variables can threaten the stability of parameter estimates, and lead to invalid assessments of the relative impact of Aact, SN and PBC in explaining intentions. As such, before a detailed analysis of the structural parameters found in the present study, the correlations between exogenous second-order belief domains were examined. The correlation between pleasant expectancy-value beliefs and overall control beliefs was moderately high in Model B2 (r=.54 and r=.53 for the idea and object-based museum respectively) and Model B (r=.40 and r=.63 for the idea and object-based museum respectively), which suggested the need to assess the extent of discriminant validity between these two exogenous variables (see Terry and O'Leary 1995 for more detailed discussion). Using a nested modelling approach, analyses confirmed that significantly larger Chi-square values[13] were obtained for models where the correlation between pleasant expectancy-value beliefs and overall control beliefs were fixed to unity, compared to models where the two variables were conceived as separate measures. This provides evidence for the discriminant validity of the measures of pleasant expectancy-value beliefs, and overall provides confidence in the parameter estimates reported for Model B2 and Model B in Table 8.1.

[13] Model B2 Idea-Based Museum: $x^2/2=219.82-202.38$, df/2= 93-92=1, p<.001
Model B2 Object-Based Museum: $x^2/2=259.46-237.53$, df/2=102-101=1, p<.001
Model B Idea-Based Museum: $x^2/2=348.77-319.86=28.91$, df/2=110-109=1, p<.001
Model B2 Object-Based Museum: $x^2/2=395.17-336.92=58.25$, df/2=110-109=1, p<.001

Overall, Aact and PBC were found to be statistically significant determinants of intention in both the idea, and object-based museums, although attitude was clearly the dominant determinant of intentions to visit both the idea, and object-based museums (see Table 8.1). These findings confirm the validity of expectancy-value theory for explaining museum visiting intentions, and as the basis for the descriptive use of expectancy-value theory and The Manning-Haas Hierarchy for product and market development. Further, these initial findings suggest that there is utility in extending current models of museum visiting behaviour to include perceived behavioural control, and the potential contributions of constraints research for developing this field of enquiry.

In both museums there was little support, in terms of a statistically significant causal parameters, for the role of subjective norms in predicting museum visiting intentions. Only in the object-based museum, when no account was taken for common method variance (Model B), was subjective norms found significantly predict visiting intentions (ß=.12, p<.001). Overall, these findings provide additional evidence for the limited role of SN in understanding intentions, which has been reported elsewhere (e.g. Bagozzi 1983).

Looking in more detail at the relative contributions of Aact and PBC to explain visiting intentions to the two contrasting styles of museum attraction, Table 8.1 shows that in Model B2 *(Model B),* Aact had a greater explanatory role for visiting intentions to the object-based museum (ß=.79 p<.001 *(.84 p<.001)*), compared to the idea-based museum (ß=.59 p<.001 *(.59 p<.001)*), while PBC had a slightly greater explanatory role for museum visiting intentions to the idea-based museum (ß = .20 p<.01 *(.22 p<.01)*), than was found in the object-based museum (ß = .11 p<.05 *(ß=.13 p<.05)).* These findings are consistent with expectations and confirm that perceived behavioural control had a slightly greater role in explaining intentions to visit idea-based museums, which were relatively uncommon at the time of data collection, and which are often not associated with heritage located in city centres and as such would require some pre-planning. While attitude had a relatively greater role in explaining visiting intentions to object-based museums environments, with which respondents are likely to be more familiar and as such as such have more crystallised

notions of what they are to experience in these museum settings. More broadly, the importance of Aact in explaining visiting intentions to the two museum environments suggests that decisions to undertake this type of experiential consumption activity was based on rational criteria, and for the middle-class sample studied, that individuals were not conscious of normative influences in forming their museum visiting intentions.

Together, Aact and PBC in Model B2 *(Model B)* were found to explain 44% *(46%)* of the variance in intention to visit the idea-based museum, and 69% *(78%)* of intentions to visit the object-based museum. In comparison, Ajzen (1991) reported a Multiple R ranging from .43 to .94, and an average multiple correlation of .71, across the sixteen studies he examined. In Ajzen's (1991) review, TOPB was found on average to explain 50% of the variance in intentions. Additional support for the validity of TOPB for museum visiting can be found in the study by Ajzen and Driver (1992)[14], where Multiple R ranged from .50, for going to the beach, to .81 for jogging, demonstrating the ability of TOPB to explain between 25% and 66% of the variance in intentions for these activities respectively. Overall, the findings from the present study suggest that the summated-complex-interactive model of TOPB achieved good predictive validity when compared to the findings from other leisure and social science contexts.

In order to demonstrate the superiority of the summated-complex-interactive model to the summate-simple-interactive model traditionally employed in expectancy-value studies, further analyses were conducted in each museum sub-sample on a summated-simple-interactive model (Model D, see Figure 8.3) where no account was taken for measurement error or structural complexity. Model D, shown in Figure 8.3, represents TOPB as conceived by Ajzen (1991).

In common with Shimp and Kavas (1984), who directly compared expectancy-value models that differed in terms of structural complexity, and in terms of whether account was taken

[14] Findings which were not reported by (Ajzen 1991).

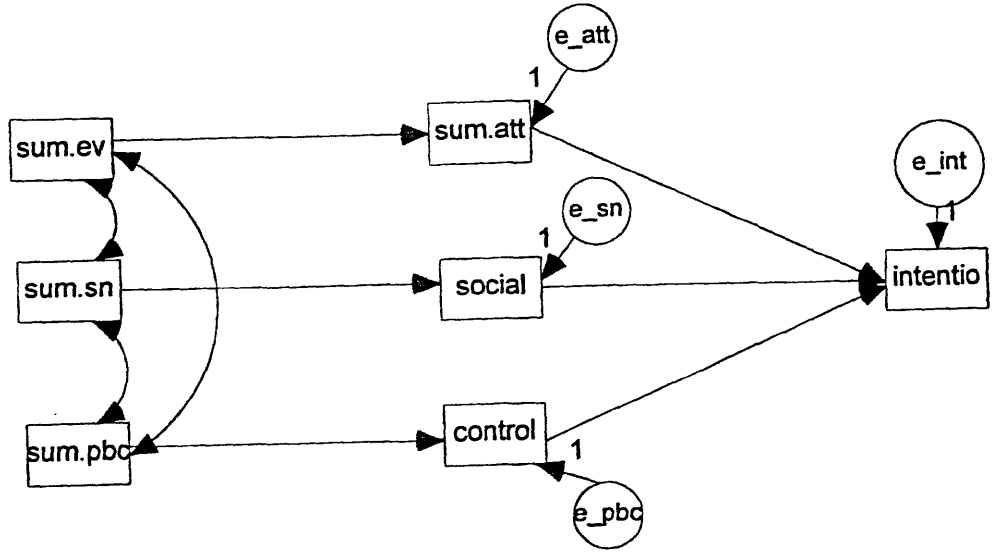

Figure 8.3: **Model D: The Theory of Planned Behaviour Modeled with Simple-Summated- Interactive Beliefs and No Account for Measurement Error**

for measurement error, Model D in the present study was found to have a poorer, and unacceptable, fit in both the idea (x^2=45.56, df=12, p<.001, x^2/df=3.80, RMSEA=.12, GFI=.95, AGFI=.88, TLI=.57, CFI=.75, NFI=.71), and object-based museum sub-samples (x^2=61.45, df=12, p<.001, x^2/df=5.12, RMSEA=.14, GFI=.92, AGFI=.81, TLI=.12, CFI=.50, NFI=.48) when compared to Models B and B2. Further, there was a significant fall in the amount of variance explained in the idea-based museum (R^2=.28), and object-based museum sub-samples (R^2=.18), compared to the levels of variance explained by the summated-complex-interactive Model B2 (44% and 69% in the idea and object-based museums respectively) and Model B (46% and 78% in the idea and object-based museums respectively). Additionally, in both museum sub-samples the explanatory ability of attitudes to predict intention fell to β=.39 (p<.001) and β=.40 (p<.001) when compared to Models B2 and Models B, and the structural parameter relating SN to intention became significant in the idea-based museum sample (β=.25 p<.001). Overall, the present findings provide support for the conclusions of other studies which have noted that the inappropriate summation of multi-dimensional constructs seriously affects the hypothesised relationships, leads to invalid inflated or deflated predictions of both intention, and the relative contribution of Aact, SN and PBC (Shimp and Kavas 1984, Bagozzi 1983). However, because the elicitation procedure adopted in the present study did not reflect procedures traditionally employed in expectancy-value studies, the present findings cannot be seen as a exact test of the differing utilities of the summated-simple-interactive, and summated-complex-interactive models for predicting intention, or for the effects of measurement error and inappropriate summation on the relative impact of Aact, SN and PBC in predicting intentions. However, within the parameters of the present research design, the predictive ability of the summated-complex-interactive model, which took account of measurement error, was confirmed to be superior to the predictive ability of the summated-simple-interactive model, where no account was taken for measurement error.

8.2 Testing the Sufficiency Hypothesis

Attitudes and social norms in TRA, and additionally perceived control in TOPB, are seen as sufficient determinants of intention (Fishbein and Ajzen 1975, Ajzen 1991). Sufficiency in TRA and TOPB is conceived in two ways. Firstly, direct measures of Aact, SN and PBC are believed to sufficient or mediate all of the effects of cognitive beliefs ($\Sigma b_i e_i$, $\Sigma sb_i mc_i$, Σcbi) on intention. Secondly, the effects of *'external variables'* such as personality, past experience and demographic differences in the sample population, although likely to be associated with intention, are believed to be mediated through the beliefs and evaluation of attributes, normative influences and control factors.

8.2.1 Ability of Global Aact, SN and PBC to Capture the Effects of Beliefs on Museum Visiting Intentions

In order to examine the sufficiency of global Aact, SN and PBC to predict museum visiting intentions, causal parameters were added to Models B2 and B which related pleasant and unpleasant expectancy-value, normative and control beliefs directly to intention. These models were named Model E2 and Model E respectively. In Model E no account was taken for shared method variance, while Model E2 took account of the shared method variance that had been observed earlier in Model B2.

For the idea-based museum, all parameter estimates between belief cognitions and intention, with the exception of the very moderate relationship between unpleasant expectancy-value beliefs and intention in Model E (β=.21, $p<.01$), were not found to be statistically significant, providing support for the ability of global Aact, SN and PBC to mediate the effects of cognitive beliefs on intention. Furthermore, support for these conclusion were found in a comparison of Models E and E2 with Models B and B2, respectively. Chi-square difference tests revealed that Model E and E2 did not significantly improve the

overall goodness of fit found in Model B and B2 respectively ($x^2/2=9.09$, $df/2=4$, $p>.05$[15]; $x^2/2=2.90$, $df/2=4$, $p>.05$[16], respectively).

Similarly, in the object-based museum sub-sample global Aact, SN and PBC were found to be sufficient in mediating the effects of cognitive beliefs on intention. None of the parameters linking unpleasant or pleasant expectancy-value, normative and control beliefs with intention were statistically significant in either Model E or Model E2. In particular, in Model E2, where account for common method variance was taken, the addition of parameters linking pleasant, unpleasant, control and normative beliefs to intention were not found to significantly improve the goodness of fit found for Model B2, where Aact, SN and PBC were hypothesised to be sufficient in mediate the impact of beliefs on intention ($x^2/2=8.61$, $df/2=4$, $p>.05$[17]). However, a comparison of Models B and Models E, where no account for common method variance was taken, revealed a small, but significant improvement in fit when the additional parameters from cognitive beliefs to intention were included ($x^2/2=12.11$, $df/2=4$, $p<.05$[18]). Model E was not accepted as a superior model of intention compared to Model B, as none of the parameter estimates linking beliefs to intentions were statistically significant.

Together, these findings confirm that, in explaining museum visiting intentions to both the idea and object-based museum, global Aact, SN and PBC were sufficient mediators of cognitive information. These findings provide support for the theoretical network in TOPB between beliefs, direct measures of Aact, SN and PBC and intention.

8.2.2 'External Variable' Threats to the Sufficiency Hypothesis

Earlier Chapters in this study found some initial support to suggest that the likely effects on intention due to socio-demographic differences among individuals in the museum samples,

[15] $x^2/2=319.86-310.77$, $df/2=109-105$
[16] $x^2/2=202.28-199.38$, $df/2=92-88$
[17] $x^2/2=237.53-228.92$, $df/2=101-97$
[18] $x^2/2=336.92-324.81$, $df/2=109-105$

and age and gender in particular, as 'external' variables to TOPB were mediated (or captured) by the differences these individuals reported in the subjective probability of experience opportunities, normative and control beliefs.

In other studies, however, there has been mixed evidence regarding the sufficiency of TRA or TOPB to mediate the effects of socio-demographic differences in the population. In particular, Parker et al (1995) found age and gender added significantly to the prediction of anti-social driving behaviour, while Terry and O'Leary (1995) found gender did not add significantly to the prediction of exercise behaviour. Similarly, there has been mixed evidence regarding the sufficiency of TRA or TOPB to mediate the impact of personal or moral norms (East 1993, Boyd and Wandersman 1991, Parker et al 1995). More recently, self-identity has been added to the list of external variables that have been found to add significantly to the prediction of intentions to buy organic vegetables (Sparks and Sheppard 1992). However, over an extended period of time, past experience has been given the most research attention as an 'external' variable capable of improving TRA or TOPB either methodologically (in terms of prediction), or conceptually (e.g. Bagozzi and Kimmel 1995, Bagozzi 1981, Bentler and Speckart 1979, Fredricks and Dossett 1983). The several conceptual and methodological roles of past experience in improving TOPB applications were recently reviewed by Bagozzi and Kimmel (1995). Firstly, Bagozzi and Kimmel identified the role of past behaviour as a methodological artefact. Although not being able to identify variables omitted from TOPB or TRA, past behaviour has been found to add significantly to the explained variance in intentions and as such has been seen to be correlated with omitted variables and act as a control in statistical analyses. Secondly, past behaviour has been seen to represent an informational input that has motivational consequences. In this way, past behaviour has been conceived as an individual's assessment of actual control (Ajzen and Madden 1986, Beale and Manstead 1991). Others authors (e.g. East 1997, Fazio 1990) have suggested that past behaviour may affect intentions by reflecting the impact of unconscious learning on intentions, which is not reflected in Aact, SN or PBC. Of less relevance to the present study, because no measures of future visiting behaviour were taken, Bagozzi and Kimmel (1995) have also highlighted that past

experience can have a direct impact on actual behaviour when that behaviour is habitual or overlearned (Bagozzi and Kimmel 1995, Trandis 1980), or when past experience captures the effects of automatic responses, such as the activation of a previously stored intention to act in a particular way (visit the local museum) at a future point in time. Pertinent to the present study, however, is the study by Sparks and Shepherd (1992) who used past behaviour as a controlling variable in order to validate the independent and significant contribution of self-identity to the prediction of intentions. Bagozzi and Kimmel (1995) adopted this same approach to determine the ability of PBC to mediate the effects of past behaviour. Bagozzi and Kimmel found that found PBC lost its explanatory power when past behaviour was added as a covariate, demonstrating the inability of PBC to mediate the effects of past behaviour on intention.

In common with previous studies, the present analysis sought to identify, firstly, whether direct measures of Aact, SN and TOPB were capable of capturing all the effects of cognitive beliefs on intention; and secondly, whether past behaviour could contribute additional explanatory effects, over and above those observed for Aact, SN and PBC, in the prediction of intentions.

In order to examine whether Aact, SN and PBC were sufficient mediators of past museum visiting experience, a measure of frequency of previous museum visits was added as a covariate in explaining intentions. This measure of frequency was specific to the idea and object-based museums evaluated by respondents. In common with earlier analyses in the present Chapter, modelling for the additive effects of past behaviour in predicting behavioural intentions in TOPB was examined both when no account was taken for common method variance (Model F) and when common method variance was considered (Model F2).

The impact of past behaviour in explaining museum visiting intentions was found to differ in the idea and object-based museum sub-samples. While for visiting intentions to the object-based museum there were no large additive effects observed for past behaviour in

predicting visiting intentions after account had been taken for Aact, SN and PBC, the addition of past behaviour to Aact, SN and PBC in the idea based museum resulted in a fall in explained variance. In particular, in the object-based museum sub-sample the parameter linking past behaviour to intentions was not found to be significant when controlling for common method variance in Model F2[19] (β=-.02) or when no account was given for common method variance in Model F[20] (β=-.02). Further, large reductions in explained variance were not found when Model B2 (R^2=.69) was compared to Model F2 (R^2=.65), or when Model B (R^2=.78) was compared to Model F (R^2=.76). These findings suggested that Aact, SN and PBC were adequate measures of their respective constructs and that past behaviour could not act as a supplementary measure for Aact, SN or PBC[21]. However, the structural coefficient from PBC to intention remained significant (β=.18, p<.001) in Model F showing that, even after controlling for the effects of past behaviour, PBC explained part of the variance in visiting intentions. These findings provided some initial support to suggest that perceived behavioural control is a proximal cause of intention and that PBC is sufficient in mediating the effects of past behaviour on museum visiting intentions to the object-based museum. However, when common method variance was considered in model F2, the structural relationship between PBC and intention fell from β=.11 (p<.01) to just below the 95% significance level at β=.07 (CR=1.88). As such, future research is required to substantiate the likley ability of perceived behavioural control to mediate the effects of past behaviour. Overall, however, these findings provide strong support for the sufficiency of Aact and PBC in explaining museum-visiting intentions to the object-based museum.

In contrast, past behaviour was found to significantly impact on visiting intentions to the idea-based museum both when accounting (Model F2: β=.29, p<.001), and when not accounting for common method variance (Model F: β=.11,p<.01). However, the significant impact of past behaviour on intentions did not result in an increase in the variance explained

[19] x^2=425.81, df=.121, p<.001, x^2/df=3.52, RMSEA=.11, GFI=.97, AGFI=.97, TLI=.75, CFI=.80, NFI=.75.
[20] x^2=323.39, df=114, p<.001, x^2/df=2.84, RMSEA=.10, GFI=.98, AGFI=.97, TLI=.78, CFI=.86, NFI=.81.
[21] A significant reduction in explained variance (R^2) would have suggested that past behaviour was acting as a supplementary measure of Aact, SN or PBC.

in the visiting intentions of respondents to the idea-based museum, which would demonstrate that a variable, such a personal norm (e.g. Parker et al 1995), or self identify (Sparks and Sheppard 1992), had been omitted from the model of museum visiting intentions. Rather, when no account was taken for common method variance, there was a fall in the variance explained in visiting intentions from Model B (R^2=.46) to Model F (R^2=.26). This suggests that the measures of Aact, SN or PBC are in someway deficient and that past experience is acting as a supplementary measure. However, these results are not conclusive. When common method variance was taken into account in Model F2, the level of explained variance remained the same (at R^2=.44), the parameter relating PBC to intention became non-significant (β=.05), and past behaviour was found to have a significant impact on intentions (β=.29, $p<.001$). As such, the findings from Model F2 suggested that PBC was not sufficient in mediating the effects of past behaviour. For idea-based museum attractions, which as mentioned previously, were not locally available to the middle-class Edinburgh residents at the time of survey, this effect for past behaviour can be explained as a lack of concrete knowledge held by individuals regarding the resource requirements or control they needed to visit this type of museum. As such, and in common with the findings of Bagozzi and Kimmel (1995) for intentions to exercise, past behaviour becomes proximal in determining intentions to visit idea-based museum attractions. Overall, these findings for the idea-based museum suggest that future research is required to understand whether other 'external variables', such as self-identify or situational effects (e.g. holidaying, visiting family and friends), have been omitted from TOPB and could add significantly in explaining museum visiting intentions to this style of museum.

8.3 Moderating or Interactive Effects in TOPB

Recently, several authors have examined the moderating, or interactive, effects of 'external' variables, such as frequency of past experience, on the relative contributions of PBC on predicting intention (e.g. Bagozzi and Kimmel 1995); and the moderating effects of 'internal' variables, namely PBC, on the relative impact of Aact and SN in explaining intentions (Terry and O'Leary 1995). In doing so, these studies have identified those

variables, such as past experience (e.g. Bagozzi and Kimmel 1995), that act as necessary conditions in order for PBC, Aact or SN to affect intentions. For example, and in common with the hypothesis of Ajzen and Madden (1986), who suggested that direct experience would result in greater accuracy of perceived control, Beale and Manstead (1991) found that the relative contribution of PBC in predicting intention was higher for individuals with previous experience compared to individuals with no previous experience. In addition, East (1992) found that experience, or the progression from novice to expert, altered the basis of decision-making from social norms to attitudes. Pertinently, evidence of 'moderating' effects for internal or external variables on Aact, SN or PBC in TOPB, suggests that it is inappropriate to assess the relative impact of Aact, SN and PBC on intentions at an aggregate level, as this misses important information, peculiar to sub-groups of a population.

Beyond past experience, other moderating variables examined in recent studies have included gender (Terry and O'Leary 1995, Young and Kent 1985), recency of past experience (Bagozzi 1983) and visiting intentions (Young and Kent 1985). Interestingly, there has been mixed evidence as to the potential moderating effects of gender on Aact, SN and PBC in forming intentions to undertake recreational activities. Young and Kent (1985), for example, found gender to moderate the influence of SN and Aact on camping intentions, with females much more likely than males to form their camping intentions based on the perceived opinions of others (SN), while males were much more likely than females to base their camping intention based on their internalised thoughts and feelings (Aact). In contrast, Terry and O'Leary (1995) found gender did not moderate the relative contribution of SN, Aact or PBC in predicting an individual's intentions to exercise. Another study notable for assessing moderating effects includes Bagozzi (1983), who found recency of past experience to affect the structural complexity of the expectancy-value beliefs held by individuals. Bagozzi argued that this is because recent experience elaborates the belief basis of attitudes, where beliefs become more numerous and deeply felt. Bagozzi's findings seem to offer support for other suggestions that generally intenders are likely to hold a greater number of salient beliefs compared to non-intenders (East 1993), as

well as Scitovsky's (1978) notion of stimulation goods, where successive levels of consumption (experience) lead to gains in marginal utility.

The present study sought to examine several potential moderating effects on the components of TOPB which would highlight the need for future research to undertake sub-group analyses in order to fully understand the predictive and descriptive contributions of TOPB to understanding museum visiting intentions. In particular, the present study in seeking to understand the determinants of museum visiting intentions aimed to determine: Firstly, whether previous experience (frequency) had a significant moderating influence on Aact, SN or PBC (Beale and Manstead 1991, Bagozzi and Kimmel 1995); secondly, whether PBC moderated the relative contributions of Aact and/or SN (Terry and O'Leary 1995); and thirdly, whether gender affecting the relative contribution of attitude and subjective norm in predicting behavioural intentions (Kent and Young 1985). Multiple group procedures were employed, and formal equality tests using nested models were performed, in order to assess the potential for moderating influences on the determinants of museum visiting intentions. However, due to sample size limitations associated with using ADF estimation[22], an assessment of moderation effects could only be conducted at an aggregate level, where both the idea and object-based museum sub-samples were combined. As such, these findings relate to the intention to visit social-history museum general, rather than intentions to visit either the object or idea-based museum.

8.3.1 Moderating Effects of Past Experience on Aact, SN and PBC

Respondents were divided into two groups above and below the median on frequency of past behaviour. As such, the low experience group included those respondents who had visited a museum (either the object or idea-based in style) once every two years or less. The high experience group included those respondents who had visited a museum (either the idea or object-based in style) once a year or more. A formal test of the equality of the high and low experience groups in terms of the structural parameters relating Aact, SN and PBC

to intention was undertaken. This consisted of comparing the model fit for the unconstrained model where parameter estimates in the high and low experience groups were unconstrained (x^2=638.00, df=218, p<.001, x^2/df=2.93, GFI=.96, AGFI=.94, TLI=.85, NFI=.88, NFI=.83, RMSEA=.07) to a constrained model where the parameters estimates for Aact, SN and PBC were hypothesised to be equal across the high and low experience groups (x^2=695.47, df=221, p<.001). The Chi-square goodness-of-fit statistics for the constrained group was found to be significantly larger than the Chi-square statistic in the unconstrained group (x^2/2=57.47, df/2=3, p<.001) demonstrating that the high and low experience sub-groups differed significantly.

Supporting East's (1992) findings that the basis of choice from novice to expert changes from decisions made on subjective norms considerations to decisions made on the considerations of an individuals attitudes (or internalised thoughts and feelings), the present study found that SN was a significant predictor of museum visiting intentions for the low experience group (β=.30 p<.001, compared to β=-.04 p= n.s. for the high experience group), while the internal thoughts and feelings, or Aact, were found to be dominant as the basis of choice in the experienced museum visiting group (β=.77 p<.001, compared to β=.35 p<.001 for the low experience group). However, although these findings show that the relative contribution of subjective norms to explain visiting intentions increased and became highly statistically significant, subjective norms were not the dominant decision criteria for the low museum-visiting experience group.

Interestingly, and contrary to the findings of other studies (e.g. Beale and Manstead 1991), those respondents in the low experience group were found to base their museum visiting intentions more strongly on perceived behavioural control (β= .36 p<.001) than those individuals in the high experience group (β= .20 p<.001). Beale and Manstead (1991) found that experienced mothers placed greater emphasis on PBC than inexperienced mothers did in forming their intentions to breast-feed. This, Beale and Manstead (1991)

[22] For ADF analyses the sample size must exceed n(n+1)/2, where n = number of observed variables.

argued, was because 'past experience' has given these mothers a more 'realistic' basis upon which to understand the possible constraints and control factors that have motivational implications. The present findings, in contrast, suggested that individuals, who visit museums once every two years or less, placed more emphasis on perceived control in forming their visiting intentions. A possible explanation for this can be found in suggestions that museum non-visitors use resource impediments as 'excuses' for not visiting (Davies and Prentice 1995). Pertinent, for the present study which has sought to integrate concepts from leisure constraints and perceived behavioural control (see Chapter 4), the finding that individuals with more experience place less emphasis on perceived control in forming their museum visiting intentions, seems to demonstrate that experienced museum visitors have developed strategies to 'negotiate' any perceived constraints to visit social history museums (Jackson et al 1993, Rucks and Jackson 1995).

8.3.2 The Moderating Effect of PBC on Aact and SN

When proposing TOPB, Ajzen and Madden (1986) acknowledged the possibility that the effects of PBC on intentions may be interactive, rather than just additive. This would suggest, for example, that the effects of high levels of control would enhance attitudes or perceptions of normative influences. Terry and O'Leary (1995) found PBC moderated the impact of intention on behaviour, suggesting that those individuals who perceived greater amounts of control were more likely to behave consistent with their intentions. However, Terry and O'Leary (1995) did not find any evidence to suggest that PBC moderated the effects of attitude or subjective norms on intentions to exercise. In the present study, multiple group analysis, where respondents were divided into high and low perceived control groups, similarly found no evidence for the interactive effects of perceived behavioural control on attitudes, or subjective norms, in predicting museum visiting intentions ($x^2/2=4.78$, df=2, $p>05$[23]) proposed by Ajzen and Madden (1986). Further research is required, however, that measures actual museum-visiting behaviour in order to substantiate whether PBC interacts with intention in predicting museum visiting behaviour.

This research would provide support for the conclusions of Terry and O'Leary that PBC only affects the intention-behaviour link in TOPB.

8.3.3 The Moderating Effects of Gender on Aact, SN and PBC

As mentioned earlier, Kent and Young (1985) found that gender significantly affected the decision-making basis of intentions to go camping, with females much more likely to base their decision-making on subjective normative influence, while males were found to base their camping intentions on their internal thoughts and feelings. In the present study, multiple groups analysis found support for the interactive effects of gender on museum visiting intentions ($x^2/2$ 23.04, df/2=3, $p<.001$[24]). Consistent with the findings of Young and Kent (1985), the present study found males to base their decision-making almost exclusively on their attitudes ($\beta=.82$ $p<.001$, compared to $\beta=.41$ $p<.001$ for females). However, in contrast to the findings of Kent (1985), gender was not found to affect the relative contribution of subjective norms to predict museum-visiting intentions. Interestingly, females were found to base their visiting intentions more on considerations of perceived behavioural control ($\beta=.43$, $p<.001$), when compared to males ($\beta=.15$, $p<.01$), perhaps reflecting the traditional responsibilities of females in organising family group activities. These findings suggest that in product and market development, attention to the experiential product is relatively more important in attracting males, while both attention to the experiential product and to reducing perceptions of resource problems, or increasing perceptions of control in relation to museum visiting, are important strategic issues for product and market development targeting female visitors.

[23] $x^2/2=266.17-261.39$, df=120-118
[24] $x^2/2=676.56-653.52$, df=221-218

Summary and Conclusions

This Chapter has focused on the predictive and nomological validity of The Theory of Planned Behaviour for understanding museum-visiting intentions to two contrasting social history museums.

When modeled as a complex-summated-interactive belief model, with second-order latent variables, this Chapter found strong support for the predictive ability of The Theory of Planned Behaviour to explain museum visiting intentions in the next 12 months. Compared to other studies concentrated on individuals intentions to undertake recreational activities (e.g. Ajzen and Driver 1991), the Theory of Planned Behaviour was found to be particularly effective in explaining visiting intentions to the object-based museum (R^2=.69), and to be equivalent to other studies in its ability to explain intentions in the idea-based museum (R^2=.44).

The superiority of the complex-summated-interactive model, over the simple-summated-interactive model was examined. Significant reductions in explained variance were observed, demonstrating that the simple-summated-interactive model was less able to explain museum visiting intentions. These findings highlighted the importance of accounting for structural complexity and measurement error.

Findings from the complex-summated-interactive model revealed that behavioural intentions, regardless of museum attraction type, were dependent on attitudes and perceived behavioural control. Attitude was found to be the main determinant of visiting intentions to both the idea, and object-based museum, confirming the utility of experience-based management approaches, such as The Manning-Haas Hierarchy, for strategic product and market development, and demonstrating that anticipated experiential consumption is based on rationale criteria. Furthermore, the significant, but smaller contribution of perceived behaviour control to explain museum visiting intentions, confirmed the appropriateness of TOPB for museum visiting, and the potential utility of extending The Manning-Haas

Hierarchy to include the conceptual contributions of the perceived control, self-efficacy, planning, and leisure constraints, developed in other disciplines. Overall, there was little support for the role of subjective norms in explaining intended museum visiting behaviour.

However, past experience and gender were found to significantly moderate the relative contribution of attitudes, subjective norm and perceived behavioural control to explain museum visiting intentions. Lack of past museum visiting experience was found to significantly increase the role of subjective norms in museum trip decision making, suggesting that museum managers may usefully identify referent pressures in order to increase the likelihood of visiting incidence for individuals with below average previous museum- visiting experience. Interestingly, lack of past visiting experience was found to lead individual's to base their decision-making more on behavioural control. While women were also found to base their decisions more on considerations of control. It was concluded that gender care roles, non-visitor resource excuses and evidence of constraint negotiation could perhaps explain these findings. Overall, however, evidence of moderator effects highlighted the importance of undertaking sub-group (multiple-group) analysis in order to fully understand the dynamics of museum trip decision making, and to ensure that targeted marketing programmes can account for these moderating effects.

Aact, SN and PBC were found to be largely sufficient in mediating the effects of beliefs, and 'other' variables on behavioural intentions. Direct measures of attitude and perceived behavioural control were found to capture all of the impacts of belief-based information on museum visiting intentions. Further, in the object-based museum perceived behavioural control was found to capture the effects of past behaviour, demonstrating that perceived control is a proximal cause, and past experience works through it. In addition, the ability of perceived behavioural control to remain significant, even after controlling for the effects of past behaviour, suggests that it is unlikely that additional variables could be added to the model to improve the variance explained.

However, in the idea-based museum sub-sample there was some evidence to suggest that measures of Aact, SN or PBC were poorly conceived, or that a variable, such as self-identity, had been omitted. The results presented in this Chapter were not conclusive and further research is necessary to explore these ideas. As museum visiting has been noted to be full of symbolic context (Anise 1996, McCraken 1990), based on status signaling (Kelly 1987a&b), and cultural distinctions (Bourdieu 1984), 'self-identity', as proposed by Sheppard and Sparks (1992), offers one potentially useful variable addition for modelling museum intention.

For both museums there was strong support for the relationship between pleasant and unpleasant expectancy-value beliefs and global attitude. For control beliefs and perceived behavioural control, however, there was little support for the structural relationship proposed by TOPB. Further, the structural relationship between normative beliefs and subjective norms could only be supported in the idea-based museum sub-sample. This may be due to poorly conceived second-order latent variables, which were reported in this chapter to have low measurement reliability. However, these problems may also reflect omitted control, or normative belief domains, or may be a result of employing crude measurement of global constructs. Studies from other literature bases, some of which were reported in Chapter 4, could be used to re-conceptualise these constructs and improve nomological validity in future research.

A positive and negative belief structure was adopted to model second-order expectancy-value domains. This Chapter found that both the positive, and the negative expectancy-value domains were capable of predicting attitude, although negative beliefs were significantly weaker in this respect. As might be expected, the negative expectancy-value domain made a much greater contribution to overall attitude in the object-based museum attraction, compared to the idea-based museum attraction, providing support for the ability of The New Museology to partially overcome some of the perceptual deterrents associated with museum visiting. Further, the proposed utility of Ahtola's general attitude model to describe the principal means of value perceived by intenders and non-intenders to the idea

and object-based museums was confirmed, and, in particular, highlighted the ability of The New Museology, or idea-based museum, to offer greater amounts of instrumental value, compared to the object-based museum. Overall, however, museum visiting was generally considered to hold high levels of experiential value, confirming the leisure context of museum visiting reported broadly in the literature.

The present Chapter has demonstrated the utility of the complex-summated model both in terms of its ability to predict museum visiting intentions, and in terms of identifying the bases of the museum experience offer, as well as the types of constraint, or control, individuals consider when making choices regarding m museum visits. In particular, for object-based museums, the primary bases of anticipated museum experiences were positive intrinsic experiences, associated with dealing entertained and findings learning fun. In contrast, in the idea-based museum a much broader bases of anticipated experience were found to be influencing decision-making. In the idea-based museum, positive intrinsic, projective absorption and reflective instrumental anticipated experiences were found to be significant decision-criteria. In terms of pre-visit resource allocation, and perceptions of control, this Chapter identified time and planning resource allocation as the main decision-basis for museum visits to the object-based museum, while interpersonal-situational control were found to be the main decision-making criteria regarding pre-visit resource allocation in the idea-based museum. This, it was argued, demonstrated the difference between the two styles of museum attractions in terms of their supply locally at the time of study, requiring the situational stimulus of holidays and family trips to facilitate visits to the idea-based museum.

Overall, this Chapter has demonstrated the utility of the two-stage modelling approach to assess the predictive utility of the Theory of Planned Behaviour for explaining museum visiting intentions, and also, to provide descriptive information regarding the decision-making basis of museum visiting intentions through an assessment of second-order latent factors.

Chapter 9: Summary and Conclusions

Introduction

This final chapter aims to highlight the key findings and contributions of the present study, and to comment on their wider implications for both understanding, and measuring, museum and other experiential consumption, as well as predicting an individual's museum and other experiential consumption intentions. As summaries of the main findings and their implications were provided in each Chapter, particular attention will be given to integrating, or 'pulling together' the multiple contributions of the present study. Finally this chapter will discuss the perceived limitations and implications of the present study, and outline areas of potential future research.

Brief Review of Main Aims of the Study

The present study adopted a two-stage structural equation modelling approach (Anderson and Gerbing 1988) to determine the nomological validity and utility of *The Theory of Planned Behaviour* (Ajzen 1991, Ajzen and Madden 1986) to both *predict* and to *explain* the visiting intentions of middle-class residents of Edinburgh to social history museums within the next 12 months. As such, the present study aimed to offer both a *descriptive* contribution in terms of identifying, and providing significant improvements in the *measurement* of museum anticipated experiences, normative influences and resource facilitators and constraints. Secondly, this study aimed to provide a *predictive* contribution, in terms of assessing the ability of *The Theory of Planned Behaviour*, and, in particular, the relative contribution of attitudes (Aact), subjective norms (SN) and perceived behavioural control (PBC), in explaining museum visiting intentions.

Until fairly recently our understanding of visitors and non-visitors to museums and other heritage attractions has been limited to socio-demographic profiling (e.g. social class, gender, residential location and income), trip characteristics (e.g. size of visiting party) and generalised 'reasons' for visiting (e.g. such as somewhere to take the children), and there has been notably lack of a conceptual framework upon which to develop our empirical knowledge of the determinants, and dynamics, associated with museum and heritage visiting. In contrast, the present study, in common with more recent studies of visitors at heritage attractions (e.g. Prentice et al 1998), adopts the *'experiential'* view (Manfredo et al 1996, Hirschman and Holbrook 1986) to focus on the intangible, imaginative and emotionally charged experience opportunities middle-class individuals anticipate from museum environments, and which have been presumed, but not empirically tested, in more recent museum and heritage studies as the basis to explain why individuals visit museum and heritage settings.

The present study, however, has gone further than past heritage and tourism studies that have adopted the experiential approach and/or have been based on an expectancy-value framework. The present study additionally includes an examination of perceived resource constraints or control, as well as the impact of perceived normative pressure, to explain why some individuals are active in the visiting profile of museums, whilst others remain latent and do not visit, and also to assess whether middle-class residents vary in terms of the resources they believe are necessary to visit museum settings, or the normative pressures exerted by four social referents, namely, their children, partner, friends and other family relations.

In terms of describing the valued-experiences, perceived resources required and the normative influences related to museum visits, the present study was concerned with identifying common factors among like measures in order to build on previous research which had tended to rely on item-by-item analyses or, at best, conceptual groupings. In understanding the common factors among like measures, or structural complexity, the

present study also sought to account for measurement error, and provide a thorough discussion of the reliability, convergent and discriminant validity that could be attained from a quantitative survey approach to measure experiential consumption phenomena. The importance of determining the structural complexity or uni-dimensionality of value-contingent anticipated museum experiences, perceived resource allocation and normative influences had been identified earlier by Bagozzi (1985), who stressed the measurement and conceptual limitations associated with studies where no such assessment had been made. Experiential consumption studies, and particularly those studies in North American leisure sciences and British museum and heritage attractions, however, have paid no attention to the structural, or other measurement (e.g. multi-collinearity, method of integrating anticipated experiences and the value placed on them by individuals) problems identified by Bagozzi (1985). As such, the present study discussed the measurement and conceptual advantages and disadvantages advanced in Bagozzi six generic expectancy-value models, and aimed to test a two-stage structurally-complex-interactive model so as to maximise the measurement and conceptual advantages of the disaggregated (non-summed) structurally complex model advocated by Bagozzi, while minimising the computational problems associated with this approach.

In order to evaluate recent changes in the development of museum attractions (e.g. Vergo 1991), and to assess the stated interaction of situational or settings attributes on experiential consumption more generally (e.g. Eliashberg and Sawhney 1994, Falk and Dierking 1992, Bitner 1992, Manning 1986), the present study sought to determine the impact of the physical, or interpretative, museum environment associated with The New (the idea-based), and Old (the object-based) Museologies on the images of these museums held by middle-class residents, and museum visiting intentions more broadly. The hypothesised impact of the anticipated museum interpretative environment (New and Old Museologies) was extended beyond experiential outcomes to include the physical-setting effects (museum attraction type) on the resources individuals perceived as necessary to visit these attractions and the normative pressures of the four social referents. From the outset of the study, these

physical-situational effects were not believed to be as strong as those that would be observed for the experiential outcomes opportunities, which in terms of the relationship with the physical setting were seen to be primary in 'pulling' or 'repelling' middle-class individuals from visiting contrasting museum environments. This was found to be the case, providing support for the continued use of experience-based management, but suggesting that some modification is necessary to take account of the impact of situational-setting effects on visiting intentions.

Throughout the thesis, attention was also given to the ability of social-demographic, cultural and childhood socialisation, and museum-related leisure pastimes to act as proxy measures which could be used to explain how middle-class individuals differed in terms of the experience opportunities, resource problems or control, normative beliefs, and the value individuals placed on perceived museum experiences. This served two purposes. Firstly, this assessed the ability of measures, traditionally employed by museum professionals to disaggregate, plan for, and communicate with their actual and latent visitor profile, to summarise the believed motivational basis of museum consumption (value-contingent experiences, resource control or constraints and normative influences). Secondly, this analysis was used to identify the bases upon which Aact (attitude), SN (subjective norms) and PBC (perceived behavioural control) could be claimed to be sufficient determinants of museum visiting intentions.

Discussion of Main Findings

a) The Impact of Museum Interpretative Setting

i) The Impact of Interpretative Setting on Valued-Contingent Experiences

The museum interpretative (media mix) environments examined in the present study were defined in terms of the New (idea-based museum) and Old (object-based museum)

Museologies, or practices in museums associated with the number of objects displayed, degree of object authenticity and mix of replicas, the opportunities given to handle or interact with the exhibition, and the degree to which the physical museum environment intends to immerse individuals in the reality of what is being shown.

The present study found Museological orientation, or the anticipated physical setting, to significantly impact the intensity of experiential outcomes anticipated, as well as the level of instrumental value (attitude) individuals perceived more generally in museum environments. In particular, this study found the New Museology (idea-based museum) to be superior across a range of emotional, thoughtful and symbolic experiential outcomes, providing gains in pleasant experiential outcomes, and reductions in the potential costs associated with negative experiential outcomes, when compared to the traditional interpretative orientation (Old Museology). The impact of museum interpretative provision on individual anticipated experiential costs and benefits, was manifest in the larger proportion of instrumental value found in respondents attitudes towards visiting the idea-based museum (New Museology), compared to the level of instrumental value found in attitudes towards visiting the traditional object-based museum (Old Museology). As would be expected from the more immersive designs associated with New Museology, the gains in instrumental value associated with The New Museology (idea-based museum) did not result in a loss of experiential-process value in these museum environments; experiential-process remained moderately dominant in describing the attitudes of middle-class Edinburgh residents towards visiting these museum attraction types. More pertinently for the object-based museum, which tend to be based primarily on pedagogical aims, the present study found attitudes towards visiting the object-based museum contained only a small level of instrumental value.

As might be expected from the primarily recreational and holiday contexts of most museum visit, experiential-process value was found to be moderately dominant in describing the attitudes of middle-class Edinburgh residents towards visiting all museum attraction types,

and together these findings suggest that experiential-process value is greater than instrumental-means end value in motivating museum visits. More pertinently, however, these findings demonstrate that ability of the immersive and interactive museum style (The New Museology) to successfully raise instrumental-value to be more or less in balance with the experiential-value, suggesting that a re-orientation in interpretative style is necessary for museum attractions charged with pedagogical aims.

These findings also provide an interesting, and empirically neglected, dialectic to the concerns expressed by critics of The New Museology (see Chapter 1 and Chapter 5). Critics have suggested The New Museology has made museums indistinguishable from theme parks, saturated with disneyification, a loss of authenticity and visitor mindlessness towards the heritage that is being presented. In contrast, the present study suggests that visitors are far from mindless, and achieve gains in both cognitive mindfulness, and affective mindfulness, that are not found in traditional museum styles. Further, this study re-emphasises the importance of 'place' or 'setting', which have previously been recognised as fundamental to managing customer satisfaction in service environments, and for experiential and heritage consumption activities, to suggest that the physical museum interpretative environment represents a dominant aspect of the total 'product' offered to consumers. Further, that 'matched' samples of middle-class residents were found to discriminate between the idea and object-based museum environments suggests that museum interpretation could be more fully developed as a valid branding basis for attractions. Future research, however, is needed to examine whether the anticipated physical environment impacts to the same extent on other heritage and cultural attractions, for example, cinemas, and zoos, landscape tourism etc. It seems likely that at least for some heritage or cultural attraction types (e.g. cinema), the impact of physical setting on the experiences and values realised is likely to be much less than that observed for museums, and perhaps other heritage attractions.

Lastly, the implications of the significant differences observed in the impact of physical interpretative environments on the experiences anticipated by individuals provides support for the continued application of The Manning-Haas Hierarchy of Demand to museum and heritage management and other experiential consumption contexts. These findings suggest that as a descriptive basis, The Manning-Haas Hierarchy of Demand usefully incorporates the importance of place and physical environment in the management of the 'experience-scape' or opportunity spectrum in service settings, or product development. To date, however, it could be argued that the dimensions of physical environment identified in the Manning-Haas Hierarchy have been poorly conceived as three primary dimensions, namely *managerial* (e.g. freedom and control), *social* (e.g. crowded-not crowded) and *natural* (e.g.urban-rural), while the present study demonstrates that the managerial setting is complex and imbued with emotional and symbolic cues. For future research, and to extend the present study, it is suggested that methodological development which can account for non-verbal communication, is necessary in order to understand the different types of physical stimuli contained within each of these categories, the sensory reactions of individuals to these stimuli, and to explore the new literacy of museum visitors likely from the increasing interactive interpretative provision. As such, the present study represents one initial attempt to understand the holistic reaction of individuals to designed physical space, or museum interpretation associated primarily within the managerial dimension of the Manning-Haas Hierarchy[1].

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[1] It could be argued that the natural dimension of physical setting in the Manning-Haas Hierarchy has been tested to some extent because of the different emphases on authenticity advocated in the interpretative provision of New and Old Museologies. However, as respondent's perceptions of authenticity in the museum environment were not measured extensively, it is difficult to make a conclusion in this regard. Further, findings given in Chapter 5 showed individuals rated idea-museum environments as more able to 'allow them to see real object' than the object-based museum. If this statement is a measure of perceived authenticity, it is suggested that idea-based museums are successful in generating hyper-reality. Further, if this is true, the dimension of authentic to inauthentic discussed by museum exhibition designers will need to revised in order to accommodate hyper-reality.

ii) Impact of Museum Attraction Types (Interpretative Setting) on Resource Control and Normative Influences

The idea-based museum being less common, and more democratic and interactive in presentation, would seem to suggest that respondents would report differences in the resources required to visit these museums, and that there may be more normative approval for visiting these museum attraction types. This was not found to be the case in the present study. Museum attractions differing in their interpretative provision were not seen to require different levels of resource in order to realise visits in the next 12 months, or as a reasons for not visiting in the next 12 months, by middle-class respondents. Similarly, the contrasting styles of museum did not generate substantially different normative pressures.

These findings may have two explanations. Firstly, the idea-based museum, being less common at the time of study, may not have been perceived by respondents as easier to visit in terms of requiring less awareness and understanding of the attraction, for example. This would have resulted in an underestimate of the easier perceived access of these attractions, that are often based on family entertainment and fun, and suggest that future studies may find greater divergence between the museum styles in terms of the resource control respondents perceive as knowledge regarding idea-based museums, differentiates them from more notions of visiting museum generally. However, these findings may also be due to the primarily holiday context of museum visiting reported by respondents, where, it could be suggested, perceptions of resource constraints are more likely to be homogeneous across different attraction styles, as they are less easy to anticipate, therefore resulting in a general assessment of perceived constraints and control rather than an assessment specific to each attraction style. Alternatively, these findings may simply suggest that museums, as one type of heritage attraction are not perceived differently in terms of access and respondent's self-efficacy. This latter conclusion would support the continued application of leisure constraints research at the general level of recreation activity type (e.g. camping), rather than disaggregating research to account for different types of camping for example.

Further, it seems that the inability of museum interpretation to effect the perceived normative pressures on individuals to visit museum attractions demonstrates the homogeneity of the present sample in terms of 'middle class normative pressure to visit', and a purposeful feature of the present research design. The present research design had to balance considerations regarding a respondent's ability to articulate their thoughts and feelings regarding museum experiential outcomes, the desire to capture thoughtful rather than thought-less decision making, and interviewer safety, against the ability to fully understand the socio-demographic impacts of social referent pressure.

However, it seems that the middle-class focus of the present study may have resulted in only one domain of dysfunctional setting experiences being identified in data reduction and confirmatory factor analyses, from the list of forty-two measured experiences. Further, at the more aggregated level of second-order factor beliefs systems, which were identified as positive-pleasant and negative-unpleasant for expectancy-value museum experience opportunities, it seems likely that if the present study was extended to a broader socio-demographic population, the unpleasant expectancy-value belief system may be found to be more complex and multi-dimensional in nature, mirroring the structural composition of positive belief system. A complex unpleasant belief structure would represent the distinct sub-groups of unpleasant experiences anticipated and not desired by those members of the population less familiar and less endowed with the cultural capital necessary to enjoy museum trips.

In terms of first-order experience, control and normative beliefs, and the second-order positive and negative beliefs system identified in the present research for museum experiential outcomes, replications of the present study are required in order to assess whether the content and structure of these are generalisable, beyond the middle-class urban Scottish residents studied, to individuals from different cultural contexts within Europe and broader geographical locations (i.e Japanese). This would also serve to substantiate the

stability of experience, control and normative structures and constructs over time, and across cultural groups. In addition, some research attention is necessary to assess whether spatial proximity to cultural resource for urban and rural residents affects the universality of the present findings for middle-class residents. That is, it is believed that an urban-rural distinction may impact on the resources, social referent pressure and behavioural beliefs associated with museum visits. More generally, and pertinent for the a future research agenda focused on the universality of the present findings, such a study would be capable of assessing current European concerns regarding promotion of cross-cultural understanding and dialogue.

b) Conceptualising Structural Complexity in the Cognitive Beliefs Basis of Museum Visiting

Unlike past museum and heritage studies, and particularly those framed within Europe, the present study sought to improve our understanding and definition of anticipated museum experiences beyond the generation of lists of potential experiential outcomes or perceptions of resource deficiencies, which have often been analysed on an item-by-item basis and where little attempt has been made to provide conceptual, and no attempt to provide empirical, groupings of anticipated experiences or museum visiting resource implications. Exploratory and confirmatory factor analyses were used throughout the present study in order to understand and account for common factors among measured experience opportunities, resources constraint and facilitators and normative beliefs, as well as a mechanism of data reduction for the perhaps over-inclusive list of museum experiences and constraints generated from the qualitative elicitation procedure used in this study.

i) Identified Structural Complexity in Value-Contingent Experiences, Normative and Control Beliefs

Anticipated and valued museum experiences were defined as the composite of five, and perceived resource implications as the composite of three, principal domains. Domain groupings of valued-experiences (positive-intrinsic, reflective instrumental, projective absorption, psychomotor mindful and dysfunctional setting) and resource control anticipated for museum visiting (external time and planning, intrapersonal, and interpersonal) were found to be common to groupings of experiential outcomes and constraints reported in wider experiential contexts including outdoor recreation (e.g. Manfredo et al 1996, Jackson et al 1993 &1991) and service environments (e.g. Otto and Ritchie 1996), providing support for the generalisability of experience dimensions beyond the museum and heritage context of the present study. For museum visits, however, the present study observed that individual museum experiences outcomes differed in terms of the emphasis placed on active involvement and the co-production of museum experiences, immediate hedonic gratification, longer-term thoughtful and reflective experiences and unpleasant experiences associated with psychological discomfort. In contrast, resource constraints and control were defined in terms of whether they were internal or external to the individual, their likely relationship with attitude formation and the degree of social co-operation the individual defined for museum visits. Interestingly, normative influences were not found to be distinct in terms of the proximal influence of home and out-of-home referents, whereas this dichotomy has been found in other studies (Burnkrant and Page 1988, Ryan and Bonfield 1980). In the present study, there was some limited evidence to suggest there could be a relationship between at-home normative referent influences for museum visit. Future research is necessary to confirm whether normative beliefs for museum visits are uni-dimensionality, or, alternatively to identify the basis of measurement error which has resulted in the inability to find the two distinct normative influences hypothesised.

Together, the confirmed dimensionality of anticipated museum experiences and control resources found in the present study emphasised that anticipated museum experiences and control beliefs represent qualitatively different and discrete sub-components in memory, thereby challenging at both a *descriptive* (conceptual understanding useful for market and product development) and *methodological* level (confounding effects of multi-collinearity and the potential capitalisation on shared variance) the traditional unweighted summated operationalisation of expectancy-value and control beliefs in predicting behavioural intention in the Theory of Planned Behaviour. Inappropriate summation, as it was noted in Chapter 7 and 8, affects the concurrent and predictive validity between global and belief based measures of Aact and PBC, and, perhaps more pertinently, affects the impact of Aact, SN and PBC as explanatory variables of museum intention, by reducing the predictive ability of attitude and artificially increasing the impact of subjective norms on visiting intentions in the idea-based museum sub-sample.

In addition, findings from the present study that have shown that value-contingent experience and control beliefs were differentially related to first-order latent factors, and as such, these measures cannot be conceived of as parallel tests. These finding challenge the unweighted summated assumptions associated with traditional summated expectancy-value models. Furthermore, these findings highlight the potential for sub-optimality in the two-stage structural equation methodology proposed by Anderson and Gerbing (1988), and currently utilised in marketing studies using structural equation modelling of complex models (Babin and Boles 1997, Selnes 1988). Currently it is usual in operationalising the two stage methodology to determine the relative association between observed variables and latent domains at *stage one*, and in *stage two,* to ignore this information and simply add up the individual measures as if they were equal in their association with their respective latent constructs. Clearly, such a procedure, it likely to introduce sub-optimality.

Further, this study has shown that whereas in the traditional operationalisations of expectancy-value theory valued-experiences are treated as compensatory, the present

findings revealed expectancy-value museum experiential domains to be distinct in terms of a positive-pleasant and negative unpleasant belief system, thereby emphasising that at least for pleasant and unpleasant museum experience opportunities, the choices individuals make regarding future museum attendance do not operate in a compensatory manner.

ii) Impact of Interpretative Environment on Structural Complexity of Museum Value-Contingent Experience Beliefs

Although, as noted above, the museum interpretative environment or Museology was found to affect the *intensity* with which pleasant and unpleasant museum experiences were anticipated, the present study found the *structure* (multi-dimensional complexity) of expectancy-valued museum experiences to be largely *unaffected* by the anticipated physical environment or museum attraction style. These findings highlight the stability, and as such generalisability, of the five-domain structure of anticipated museum experience, at least, across one heritage attraction type, namely social history museums (see Chapter 7). Similarly, when expected-experience domains were disaggregated in their antecedents of subjective probability of museum opportunities (or the experiential image or subjective probability, see Chapter 5) and the desirability (or evaluation) individuals attached to the experiential outcomes (Chapter 6), the five dimensional structure remained capable of describing relationships of common factors among individual perceived and valued experiential opportunities, providing a further degree of support for the stability of the five domain structure at different levels of cognitive abstraction.

However, the museum interpretative environment was found to affect the *'structural dynamics'* of the five-experiential domain model for museum images (subjective probability) with the idea and object-based museums differing significantly in terms of the range perceived opportunities respondents reported for each experiential domain (domain variance); as well as the degree to which the five experiential domains were related to individual observed experiences (factor loadings matrix). Interestingly, and consistent with notions of the idea-based museum as capable of democratising museum visiting, the

variance in the five experiential image domains was found to be larger in the object-based museum, than was observed in the idea-based museum.

In terms of the desirability value individuals attached to experiential outcomes, the present study was not designed to assess whether desirability value was affected by the anticipated interpretative setting of museums. As such, and consistent with the research design employed, museum desirability value was found to be invariant across interpretative style in terms of both *structure* and the *dynamic* relationships between and within the five experiential domains identified. However, not accounting for the differences in physical interpretation (or physical situation) could be seen as a limitation of the present study as it has recently been noted in a study of tourism consumption that personal values are contextually dependent (e.g. Crick-Furman and Prentice forthcoming). Furthermore, it is a commonly accepted feature of postmodern consumption that individuals have multiple roles (e.g. Firat et al 1995, Venkatesh 1992) which are likely in turn to affect the desirability value associated with museum visits. Further, beyond the a lack of account being taken for the physical situation, this study in hindsight may have benefited from restricting the situational context of anticipated museum visits to distinguish, for example, between museum visits on holiday, as a part of an individual's at-home recreation portfolio, as part of an organised trip or as something to do on a rainy day. More pertinently for a study framed within the tradition of Fishbein and Ajzen's expectancy-value framework, a further limitation of the present research design could be seen as the lack of *specificity* across measures of behavioural beliefs, outcome evaluations and behavioural intentions in terms of the 'target' (i.e. level of generality in the measurement of museum attractions) examined. In particular, in the present study respondents were asked for their desirability for museums generally, while all other measures in TOPB related to either the idea or object-based museum. Although, Fishbein and Ajzen (1975) have stressed the importance of consistency in terms of *target, action* and *time* to model behavioural intentions, the supportive predictive validity of the present study, which was found to be equal to or above that reported in other studies, suggests that this omission has not been too problematic for

the present study, and was necessary in order to ensure some baseline level of comparison, beyond socio-demographic characteristics, could be made between the two sub-samples so as to assess the impact of museum interpretative design on perceived experiential opportunities.

iii) The Inclusion of Desirability Value in Measuring the Anticipated Museum Experiences

However, beyond the above limitations, the present study in accounting for desirability value has served to partially redress the empirical and conceptual neglect of heritage, leisure and tourism studies to account for the differences between individuals in terms of the value they associate with experiential outcomes and which, within the expectancy-value framework at least, represents the motivational 'push' forces driving consumption.

Overall, the present study has found that weighting perceived experiential outcomes by the desirability value individuals attached to them serves to mediate, or 'level out', the differences in the *'structural dynamics'* noted between the museums interpretative styles when subjective probability or museum experiential images were examined in isolation. Chapter 7 showed that the five expectancy-value experiential domains were both appropriate for the idea and object-based museums and that the relationship between these domains (interfactor, correlation), the range of expected-valued experiences perceived (variance in latent dimensions) and the degree to which expected-valued experiences were explained by (or contributed to) the five latent dimensions were independent of the physical setting. However, these findings *do not* suggest that the two museums are equivalent in terms of anticipated and valued experiences.

In particular, the present findings did *not* suggest that the inclusion of desirability value in the measuring the cognitive belief basis of museum-trip decision making mediates the significant effects of anticipated interpretative setting on the experiential images (subjective probability) individuals reported in Chapter 5, despite the reported similarity between the

two museum in terms for value-contingent expectations in terms of structural invariance and similar structural dynamics. In fact, univariate F tests confirmed that the idea and object-based museum interpretative environments are significantly different in terms of their mean scores on positive intrinsic ($F=38.481$, $df=1$, $p<.000$), projective absorption ($F=26.706$, $df=1$, $p<.000$), reflective instrumental ($F=7.161$, $df=1$, $p<.008$), psychomotor mindfulness ($F=26.711$, $p<.000$) and dysfunctional setting ($F=6.676$, $df=1$, $p=.01$) value-contingent anticipated experiences. As such, the present study has shown that it is at an 'aggregate' or abstract structural level that the impact of combining subjective probability and value is pertinent. The effect of combining subjective probability and desirability value was one of stabilising the *dynamics* of the five dimensional anticipated museum experience structure observed in the two museum sub-samples. In this way the utility of weighted subjective probability could perhaps be seen as the identification of the true structure of anticipated museum experience in motivating visiting intentions, in that there is generality in both structure and structural dynamics for expectancy-value museum experiences across one heritage attraction type, namely in the present study, social history museums.

However, although these findings attest to the importance of including an individual's evaluation of experiential opportunities in studies of museum visitors and non-visitors, future research is necessary to examine the universality of the five expectancy-value experience domain structure and structural dynamics to both other *heritage* consumption contexts e.g. castles or themed heritage parks, and to other experiential consumption contexts more broadly e.g. cinemas, mountain climbing, holidays etc.

Otto and Ritchie (1996) and Tian et al (1995) found the same dimensionality in consumption experiences over a range of tourism service facilities and heritage attractions, respectively. For these reasons, it seems likely that the five dimensional model of museum experience could be transferred to other heritage contexts. However, the extent to which the structural dynamics and the content of the experience-sub-domains would remain unchanged seems less certain, and it is suggested that future research will have to ground

the two-stage structural equation modelling approach advocated in the present study with exploratory qualitative interviews, in order to ensure content validity in other consumption contexts. Indeed, it is expected that the structural dynamics among experiential domains will vary in different heritage contexts and highlight the differences between museum consumption and broader experiential consumption practices, such as foreign holidays, cinema visits or shopping excursions.

c) Nomological and Predictive Validity of The Theory of Planned Behaviour and the Utility of a Two-Stage Summated Interactive Model for TOPB Beliefs

This study concludes that, independent of museum attraction style, museum visiting intentions are primarily a function of attitudes (Aact), which in turn were found to be associated with a complex (multi-dimensional) of five perceived valued-experiences domains. To a lesser, but significant, extent museum visiting intentions were found to be related to perceptions of behavioural control (PBC), or the resources (external time and planning, interpersonal situational and intrapersonal-awareness) required to realise museum visiting intentions.

Further, due to the structural equation modelling approach adopted, the high degree of explained variance reported for visiting intentions, and the relative contributions of attitude and perceived behavioural control reported in Chapter 8, were unaffected by problems associated with measurement error, the confounding affects of multi-collinearity or problems associated with the inappropriate summation of complex behavioural, control and normative beliefs structures. As such, the present study finds support for the ability of the Theory of Planned Behaviour to predict museum-visiting intentions to two contrasting museum attractions in a 12 month period.

However, and in common with many studies (East 1997, Bagozzi 1981 for example), subjective normative influences, associated with perceived social referent pressure, were found to have little impact on visiting intentions, suggesting that subjective norms and/or

normative beliefs were either poorly conceived (e.g. White et al 1994, Burnkrant and Page 1988; see Chapter 4); that museum visiting is not defined as a co-operative behaviour, as has been found to be the case for camping (Young and Kent 1985) and contraceptive use (Kashima et al 1993); and/or that museum visiting behaviours are not under normative control (Trafimow and Fishbein 1994).

In part, however, it seems likely that the inability of subjective norms to act as an explanatory variable in understanding museum visiting intentions is a result of the middle-class focus of the present sample. In particular, the lack of variance observed in measures of subjective norm and the normative beliefs held by respondents for the four social referents assessed (see Chapter 4b), has resulted in the inability of subjective norms to explain museum visiting intentions to either the idea or object based museums. As such, although this study has extended the scope of previous museum research beyond the observation of on-site group interaction to consider the motivational impacts of social referents, further research on a broader socio-demographic sample, where it is likely that there will be greater heterogeneity in normative beliefs and subjective norms, is required so as to establish if subjective norms measured directly or indirectly in the present study were poorly conceived or whether normative influence do, indeed, have little impact on visiting intentions.

Further, the present study recommends that subjective norms in future research should be extended to include group attitudes and groups norms, as suggested by White et al (1994), in an attempt to capture the highly symbolic influence of referent group norms noted elsewhere (e.g. Kelly 1987a&b). In addition, further research needs to determine the potential of Bagozzi's (1985) additive model of expectancy-value beliefs to capture the effects of cultural socialisation and other group learning and in this way further our understanding of the impact of unconscious group pressure on the museum visiting attitudes. Elsewhere in museum studies, consumer behaviour and sociology, social learning and cultural effects have been highlighted for the ability of social class, and other cultural distinctions, to

explain the differing relationships individuals from different sub-groups of the population have with museums (e.g. Merriman 1991, Prentice 1993a, Kelly 1993, Kelly 1987a&b, Bourdieu 1984). These earlier studies highlight the potential utility of Bagozzi's (1984) additive model. However, as the present study only sampled middle-class Edinburgh residents, it was decided that the utility of the additive model was somewhat limited, and that future research based on a broader cross-section of the population was necessary in order to examine the potential independent effects of anticipated experiential outcomes and unconscious shared cultural experiences (or social learning) on Aact, SN and PBC.

More broadly the conceptual and methodological merits of a two-stage structural equation-approach to model expectancy-value attitude research have been discussed throughout this thesis and are summarised in Exhibit 1.1 (see page 27, Chapter 1). The present study aimed to address the past conceptual and measurement deficiencies in expectancy-value attitude research, and apply them to the present application of the Theory of Planned Behaviour to museum visiting intentions. The present study concluded that a complex-interactive summated model of visiting intentions (stage 2), grounded on a thorough examination of the convergent and discriminant validity of the summated indexes (Stage 1), is appropriate for modelling museum visiting intentions and capable of overcoming the computational problems associated with a disaggregated complex interactive model, the loss of descriptive utility, introduction of potential measurement error, and the inability to fully test the belief measurement model when the traditional Fishbein and Ajzen (1975) simple-interactive-summated model is employed; as well as the loss of descriptive utility and the introduction of potential measurement error when the complex-interactive-summated model is employed which has not been subject to initial stage one tests of convergent and discriminant validity.

In addition, it was argued that the two-stage summated-interactive-model was partially able to overcome problems associated with the inclusion of non-salient behavioural, normative and control beliefs in modelling visiting intentions. This is because, in contrast to the

traditional uni-dimensional summated model associated with TRA and TOPB, the complex-interactive summated model accounts for the relationships among pieces of cognitive information and by representing beliefs as a multi-dimensional construct, redundant information when included does not impact on attitudes or intentions, as it has been argued to do for the uni-dimensional conceptualisation.

Further, the utility of structural equation modelling as opposed to the more commonly applied OLS regression was shown to extend beyond the ability to remove the effects of measurement error on parameter estimates and an assessment of explained variance, to allow a fuller examination of nomological validity. In particular, this approach allowed simultaneous account to be taken of both the direct and indirect measures of attitudes (Aact), subjective norms (SN) and perceived behaviour control (PBC) on intentions; an assessment of the moderating (interactive) impact of past experience and gender on the relative contribution of Aact, SN and PBC on visiting intentions; and an examination of the moderating (interactive) effect of perceived control on the relative contribution of Aact and SN on explaining behaviour.

Overall, structural analysis showed there was support for nomological validity of The Theory of Planned Behaviour for museum visiting intentions. Global (direct) measures of Aact, SN, and PBC were found to capture all of the effects of behavioural, normative and control beliefs on museum visiting intentions. However, although TOPB generally, and Aact and PBC in particular, were found to be sufficient in explaining the visiting intentions to the more common object-based museum (Old Museology), past experience was found to add significantly as a covariate to the explanation of visiting intention to the idea-based museum. Previous studies have suggested gains in explained variance associated with the addition of past experiences captures the effects of unconscious learning or habit on behaviour or visiting intentions (Trandis 1977, Fazio 1986), or that a variable such as moral norm (Parker et al 1995) or self-identity (Sparks and Sheppard 1992) have been omitted from the theory, and as such past experience operates as a methodological artefact.

However, for visiting intentions to the idea-based museum in the present study, the addition of past experience reduced overall explained variance, suggesting that one or more of the measures used to model TOPB were deficient and that past experience was acting as a supplementary measure for Aact, SN or PBC.

Beyond the problems in the measurement of subjective norms discussed earlier, these deficiencies may result from respondent's lack of proximal availability of idea-based museum attractions. Alternatively, it seems likely that the range of emotions associated with intentions to participate in experiential consumption may not be fully captured by either the experiential-process, instrumental means-end attitudes, or perceived behavioural control modelled in the present study. As such, future research is required to examine the reasons for the effects of past experience noted for visiting intentions to the idea-based museum. Usefully, research attention may begin by focusing more closely on the measurement of emotions anticipated in museum visits. In particular, it seems that research attention focused on the emotional reactions to pre-visit experience (control), which were not accounted for in the present study, and to the authors knowledge have not been addressed by previous studies, may be a potentially fruitful area of research.

In contrast, for museum visiting intentions to the object-based museum, past experience was not found offer any additional explanatory effects. In fact, the impact of perceived behaviour control remained significant even when controlling for (introducing) past experience. As such, unlike recent studies focused on intention to exercise or diet and which have also examined the effects of past behaviour as a covariate (Bagozzi and Kimmel 1995), the present study confirmed that perceived behavioural control had a proximal effect on museum visiting intentions, and that past experience, if anything worked through an individuals perceptions of control only. These findings provide support for the sufficiency of perceived behavioural control in mediating the effects of past behaviour and provides further support for the appropriateness of TOPB for understanding museum visiting intentions, particular in the object-based museum.

However, the present study, in common with a handful of more recent studies (Terry and O'Leary 1995, East 1992, Beale and Manstead 1991) has also shown that sub-group analysis is required in order to fully understand the dynamics of Aact, Sn and PBC on museum visiting intentions. In particular, the present study found previous experience of museum visiting to moderate the explanatory power of attitudes, perceived control and subjective norms for visiting intentions. In common with those findings of East (1992), subjective norms were found to have a significant impact on the visiting intentions of individuals with less experience of museum visiting, when compared to respondents who were classified as experienced museum visitors. Similarly, and somewhat consistent with the idea of museums as 'stimulation goods' (Scitovsky 1978), attitudes towards museum visiting had a significantly stronger impact on the visiting intentions of experienced museum visitors, than on the visiting intentions of respondents with less experience of museum visiting.

Interestingly, however, and in contrast to the suggested impact of past experience on the accuracy, and as such influence, of perceived behaviour control on intentions (Ajzen and Madden 1986, Beale and Manstead 1991), the present study found past experience to result in a fall in the effect of PBC on museum visiting intentions, suggesting possible evidence of *constraint negotiation* (Jackson et al 1993, Jackson and Rucks 1995). Together these findings highlight the need for research addressing the mechanisms by which individuals experienced in museum visiting have achieved constraint negotiation, the importance of changing or alleviating perceptions of resource difficulties for less experience consumers, and the importance of sub-group analysis to fully understand the dynamics of TOPB in explaining visiting intentions.

Overall, the present study has found support for the continued use of psychological variables, namely value-contingent experiences, as descriptive tools in for profiling museum visitors and useful for product development. Further, these psychological variables were

found to be highly predictive in terms of explaining visiting intentions in the next 12 months. In addition, however, this study has suggested that perceived control is an important psychological and perhaps social structural variable that the Manning-Haas Demand Hierarchy omits as an explanatory variable, and it is suggested that resource constraints, or notions of perceived control may be usefully be incorporated into the model to account for the impact of self-efficacy and other resource requirements to add a small but significant explanation for museum visiting intention, and perhaps leisure behaviour more broadly.

Furthermore, this study has demonstrated the strengths and application of structural equation modelling to experiential consumption. However, beyond it's utility as a method capable of thorough descriptive analyses and unbiased predictive analyses, structural equation methodology, and in particular, the multiple-group analyses presented in earlier chapters of the thesis, has the ability to test the discriminant and predictive ability of experiential clusters derived from segmentation studies, and which have become popular in recent years. More pertinently, however, structural equation methodology is capable of identifying the exact reasons for the differences between the segments in terms of structure or structural dynamics.

One last concern regarding the limitations of the present study, and another fruitful area of new research, is focused on further developing our understanding of latent demand. The present study, in common with many studies framed on understanding why individuals do not undertake an activity, has framed the behavioural consequences, normative influences and other control requirements in term of the 'positive' action of museum visiting. It would be interesting to examine the behavioural consequences, normative pressure and control resources that respondents report in their 'negative' action towards museum visiting. That is, to elicit what individuals believe the consequences of not visiting museum would be. This seems to offer a potential, particularly on a middle-class sample, to understand some of the dynamics of not visiting currently incorporated in conceptualisation of TOPB.

Overall, the present research has addressed the subjective, symbolic and emotion laden subject of the costs and rewards of museum visiting intentions, and applied structural equation modelling to model anticipated museum experience and identify classifications of control. Although successful in its application, in terms of the descriptive and predictive utilities it has applied, this approach may incite criticism from museum curators of the scholarly view.

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Appendices

1. Letter of introduction used to identify respondents for qualitative interviews (data collection stage 1).

2. Interviewer guide for qualitative interviews.

3. Table 2.2 Examples of main themes found in qualitative analysis.

4. Postcard of introduction used in quantitative data collection (stage 2).

5. Quantitative schedule.

6. Pictorial Collages used as stimuli for quantitative schedule.

7. Notes on the derivation of a composite index to identify middle-class'ness'.

9th. August, 1994.

M. Young
40 Lauriston Place
EDINBURGH
EH3 9EZ

Dear M. Young,

My name is Andrea Davies and I am a research student at Queen Margaret College carrying out research into Edinburgh residents' leisure activities and interests.

I am researching how people spend their leisure time other than in the home and would be very grateful if you could spare three quarters of an hour between 5th and 23rd August to be interviewed. If you are busy perhaps some else in your household, who is over 18 years old, could help me.

I will be able to visit you in your own home or could arrange to meet you at Queen Margaret College. Our discussion will be treated as strictly confidential. You are guaranteed complete anonymity and the information you provide will not be given to any commercial organisations. The sole purpose of the interview is to assist me in my studies.

I will telephone in the next few days to ask if you are willing to participate and if so to arrange a convenient time to call. When I telephone please do not hesitate to ask any questions you may have regarding the research project. My supervisor is Dr. R. Prentice at Queen Margaret College and if you wish to speak to him about my research please phone him on Tel: 031 317 3426.

I look forward to speaking to you.

Yours sincerely,

Andrea Davies.

Andrea Davies
Queen Margaret College

INTERVIEW GUIDE: In-depth Interviews

Introduction:

* The objectives of my research and our interview today is to investigate how residents of Edinburgh spend their leisure time other than in the home

* You are guaranteed complete anonymity and the information you provide today will not be given to any commercial organisations. The sole purpose of this interview is to assist me in my studies.

* I would prefer to tape record the interview so that I have a complete record and can make notes later. The tape recording will only be used for my studies at Queen Margaret College. Would you mind if I tape recorded this interview?

Grand Tour:

ice breaking questions, give respondent practice in talking to interviewer, provide valuable information about how respondent construes the general characteristics of the context

* General Leisure Interests Outside of the Home

* Opportunity Sets — Activities consider/like/participate in (establish whether heritage attractions are a part of respondents consideration sets)

* Socialisation — When first began activity
  Joint Decision Making — Activities recently begun: when/where/how
  Other Influences

Prompt Questions: Leisure Activities Participate In

* Leisure Agenda Needs/Reasons	Valued leisure attributes What respondent likes about activities What respondent doesn't like but accepts (must probe emotional before rational if possible, explore if emotionally or cognitvely driven) Reasons for going/participating:push/pull
* Leisure General/ Specific	Whether reasons vary by activity/ attraction type
* Situation Frequency/Regularity	How often? Explore if situations prompt prompt visiting/participation
* Constraints Perceived/ Experienced/Overcome	Like to participate more? Times like to participate more bur have been unable?
Leisure Time Priorities: time benefit/ financial opportunity costs	Explore if things are overcome in order to participate? Reasons for stopping participating Contemplate doing but never manage to How do you order/organise your time? What things are most important

Memorable Experience

* what you liked, how you felt, what you saw, what you wanted, why you participated/went?

Ideals: explore aspects of ideal leisure pursuit

HERITAGE

Split Questionnaire: a) Non-visitors
b) Visitors

I am particularly interested in your feelings and thoughts about museums, theatres and castles

a) Non-Visitors

* Affective — Do you like? Explain.....include your feelings and thoughts

* Reasons for Not Visiting — Barriers/Constraints: hierarchies (blocking/inhibiting) (permanent/temporary)
  Motivational reasons: beliefs, attitudes, expectations

b) Visitors

* Affective — Like? Dislike?

* Frequency/Regularity/ Situation

* Socialisation

* Last Visit — Reasons, needs, wants, decision process

* Constraints experienced

* Influence of past experiences

* Substitutability

Table 2.2: Themes Derived From Qualitative Interviews: Museum Experiences, Social Referents, and Resource Constraints and Control (interview number)

Museum Experiences

PERSONAL PROJECTIVE EXPERIENCES

a) Fantasy Personal Projection

"you think 'fancy them doing that in those days' and you put yourself in their position" (20)

"I think what it would have been like if I'd live then, if I was lady of the Castle. It makes you think back to Scotland in the old days" (19)

"you could see the royal gardens from the huge window and you image how it must have affected your whole life, waking up and looking on those gardens" (18)

"you just try to imagine what it must have been like to live in those days..it is all escapism ..it is something different..it is all escapism from your normal way of life and just putting yourself in a different environment and trying to appreciate that...its all escapism from the normal way of life and just putting yourself in a different environment and trying to appreciate it" (8)

"I just think if I could do that, I would do it that way. It is one of these unexpected achievement things. Something that you like to be able to do and have done at a lower level yourself and you see someone actually doing it. It is one of these personality transpositions you are saying 'if I could really be able to do this, that is how I would do it'. So it is projection really. Into fantasy land I suppose....it is fantasy" (15)

b) Personal Historical Projections

"old tins and old prices and that was interesting. Something I could remember. Things that are in different packages nowadays. Somthings I could rememeber these things..things that are in different packing now. I could remember the old packaging. ...they had the first washing machines which ere just coming out when we were kids...you enjoy visit places like thiat. It jogs your memory and gives you a good laugh, and I think 'god, I remember my mother having a Hoover like that'. Modern Hoovers looks so solid in comparison to the old fashioned things we had.....the old fashioned steamy, teas in the carriage restaurant...Something that you can remember from when you were younger, when trains went slow, Not rushing like now" (10)

"the museum of childhood was good. Seeing all those old toys and things and seeing how it has moved on...and the school desk" (8)

Table 2.2: Continued.....

CONNECTING WITH THE PAST: EXHIBITS AND PEOPLE

a) Connecting with Exhibits: Marvel/Awe/Amazement at the Objects Presented

"or you go to something completely new and look at articles like the Roman exhibition in the NPG and just marvel at the beauty of these things or the simplicity of this stuff, the craftsmanship about it, extraordinary the technology they had and the intrinsic designs, the ability to make beautiful things with low technology. Incredibly impressive..just how exquisite some of this stuff and the designs. It is just gorgeous. You marvel at the beauty of these things or the simplicity of the stuff..the safety pins..3000 years old..it is astonishing how creative people were. You imagine that they didn't know very much and that all these products were of modern minds. But of course 3000 years is almost nothing in terms of the human experience. very impressive" (9).

"I enjoyed looking at the machines...the Victorian engineering ..the display of machines and how it operated. It was interesting to see the way things have progressed, to see the ingenuity that went into making these things. There were models of sea engines that went into powering the ships and you can see that they developed engineering to a certain extent...and they were surprisingly sophisticated" (8)

"sometimes the pleasure of seeing things that you've seen before. I used to go quite regularly to different London museums because I knew that there were certain things there and I like to see them because I admire them. Miniature collection I went regularly to see. They are beautiful things. Something that gives you pleasure and if you haven't seen them for a while you tend to forget certain things" (3)

"I like to see it first hand" (14)

"seeing all the things that are famous in the original...quite impressive" (21)

"Coronation Street museum. We saw all the shops and the Rovers and washing machines and the clothes they wear. Oh it was very good.." (10)

"it is pleasurable reacquainting yourself with things you've seen in books, on T.V. etc" (9)

"you read about them and you see them. Otherwise you would never see them...but to actually be there. I really wanted to see these things. We'd heard a lot about it, but we had never been so we went to York to see what it was like" (12)

continued.....

"I remember as a child being in Chamber street and being enthralled by the exhibits" (19)

"I like to look at old and beautiful things, just the craftsmanship and the skill they have using those primitive tools" (17)

"I thought about the craftsmanship and imagined what the atmosphere must have been like, or how people must have lived" (15)

"enjoy the skill someone had in eighteen something. The collection of illuminated manuscripts ..the beauty of them and yet they were so practical" (3)

"you look at the dates and its 1790 and you think 'hey that is going back a long way. 200 years ago and they could build this" (21)

b) Connection with People (Imaginative Connection):

"I liked the pewter ware collection. Small everyday items that put things in context. I like looking at the coins. It was an immediate connection with the people who had handled them: small change people used to carry around with them. It is a link and something that is quite intimate, unlike the enormous gold chains or piece of glassware that only rich people used. Ordinary people used coins. It was like bringing people to life" (9)

"it was just so hard to believe that that basic lump had been excavated. They were thousands of years old and they were half way around the world. You could look at them and I just started to wonder what it was like in those days when people did those sorts of things" (12)

"you open the door and you know that in the year 1100 someone opened that door and went into that room. People actually lived there. I just like to think of all the generations that have passed through ..interesting ..full of stories ..the human elements" (14)

"Somethings are interesting and others are not much important to us. I like old things that are years old, that hang on the wall, the old brass. It tells you so much about them and who owned them" (9)

"seeing the craft and the material and comparing them with others you have seen...where you contrast Persian silk with something we would wear...looking for connections" (15)

"I think that they must have had good parties" (20)

"...and you think 'god this has been here before', and I think because Edinburgh is such a beautiful city and has most of its history intact. That is great to see. It is great to be able to appreciate what has gone before us and say 'god this building was standing here...this is what they did here'; I am just interested in how they lived in those days, how they coped with life ..see why things happened before and that it is all linked up" (16)

"I like to see how people lived in the past. I went to the People's Palace in Glasgow...now that really does interest me because it is about people in the past and a lot is still relevant today....that's the kind of museum I enjoy..that you can relate to" (2)

Table 2.2 Continued.....

HEDONIC AND ENTERTAINMENT

a) Emotionally Charged/ Pleasurable/ Experiencing Another Reality (Immersion)

*"it was **exciting** in the museum in Vancouver. Got some real fun. You'll walk into primeval forest in British Columbia and you **actually physically feel it and you realise that you are there.** Very realistic. The live impression not sitting in glass boxed. **It is holistic. They transpose thing and you can actually see the animal in its context**"* (15)

*"I went to a small museum on holiday. It was just exhibits on display in cases and very little information or attempt to put them in context... it was rather dry and academic, you really want to be able to put things in context. We went to Yorvik ands it was an attempt to display the way life was...and we went to Weymouth. It was a **time capsule** and there were a number of tableaux explaining the history of the tours..and to make it more fun it was told by a cat that had nine lives so it could travel through different periods. It was informative put it was done **with fun.** It wasn't a traditional museum but it did educate you. I suppose there has to be a place for displaying suits of armor and pieces of pottery but it is always more interesting to have them put in their context rather than items just in a display case. The Georgian House in Charlotte Square. That tries to put things in context...that is what I prefer you know, **seeing something that has been put in context and helps you envisage what life was life rather than just items on display**"* (8)

*"**a soul experience...it is all mixed up in your emotions.** It is just some kind of emotional lift that you can get from doing things. I find all things are all related back to nature and that is probably related back to my career"* (15)

*"it was **quite exciting** (visiting a museum as a child). You'd learnt about castles in history and you were actually in one"* (8)

"sometimes it is quite exciting, sometimes it is just interesting and sometimes you just wish you could get out" (28)

*"get me out and gives me a **pleasurable** day"* (10)

*"visit old friends in the V&A and (museums) at home. Go back to look at things you've seen before. **It is like re-reading a good book you enjoyed** or to go and look at something completely new"* (9)

*"impressed with the quality and range of exhibits. I enjoyed the way they were displayed. I was **relaxed and enjoyed the way they were presented**"* (27)

"They are becoming more interesting now, changing all the articles from behind glass.. being more adventurous. Modern museum it is more laid on a plate. You don't have to think" (19)

"Its entertainment but you do have to think" (27)

*"release from the normal tension. .**entertaining**"* (22)

continued.....

b) Group Cohesion/ Social Experience

*"Enjoyment and entertainment. **You talk about it later**"* (11)

*"gives me a **couple of hours of entertainment for the children, but something I enjoy as well.** It is good to do something we all enjoy at some level"* (8)

"pleasure of taking them (family), seeing what they are looking at..the children of course have been with the school..it is a pleasure taking them to see something they want to see..very often school does mention something and they (children) can extend their knowledge and interest in the subject...it is very nice if you can take them" (1)

"something that we can do together for family cohesion"(22)

"activity we can do together" (1)

"part of the fun is pointing things out...sharing the experience" (8)

"the Chinese warriors exhibition. I went to see them and it was very interesting, all the people you see. I liked that one. We saw it advertised ..it was worthwhile and we took some pictures. It was good to see that from China....met a lot of Chinese friends when we went there and had a good chat" (25)

c) Transcendence and Flow-like Experiences

"feelings of autonomy, being alone..you get right into it. You forget the time, reading who he was, when it was made and suddenly dusk is coming... (20)

"I'm lost away in myself. I like to walk around twice and re-visit the ones I like" (15)

Table 2.2 Continued.....

LEARNING EXPERIENCES

a) Insight into How People Lived

"the knowledge and stimulation. Get your brain working. It satisfies your curiosity. You've got an intellectual curiosity that just keeps probing things, that you don't know the first thing about, but it lets you find out...under an educative experience, being educated. Something you didn't know in detail before. Give your mental attention for a period of time." (15)

"gain a sense of history and knowledge. I might not remember, but at the time..." (29)

"knowledge and insight into how they lived" (16)

"seeing how people lived" (10)

"when on holiday, when in another place, you like to know the history of the people, where they appeared from, find out a little about them and the area" (11)

"I was there to learn. All they wanted to see was the Mona Lisa and go,... and all the other painting that these guys had dedicated their lives to..I wanted to learn about the past" (2)
"used to take the kids when they were you and were doing project. Quite a regular thing, especially in the winter. Showing them things from the past. Just part of their education. Improving their standard of education" (12)

"I like to see how people lived, but I do get bored. I don't like watching rows and rows of coins or books. The occasional coin or the occasional book, yeah...I like variations in a museum" (2)

b) Learning New things /Lack of Novelty

"you find things you would never have looked at ...even the engineering feats were quite amazing. In years passed when you look at them now and see what they were able to produce,...its wonderful... you find things, of course, that you never thought of looking at if you go to these places" (1)

"seeing how something was done that I didn't know about" (3)

continued.....

"The fascination of finding out things you didn't know ...getting involved in things you didn't realise you were interested in" (28)

"I don't go back to permanent exhibitions. I need a sense of looking for something new. I won't go unless I'm certain that I'm going to get something out of it, view it with pleasure and interest" (28)

"I've seen most of them locally. I'll probably wait until the children are at the age when I can take them" (19)

"Don't go to the same museum again and again. Once you've seen it, it doesn't have the same.... In Edinburgh they tend to be National museums and once you've seen them a couple of times with the kids you've got no inclination to go again" (12)

"once you've seen them, you've seen them. I wouldn't go again" (10)

c) Discovery and Surprise

"part of it is the pleasure, of the surprise of what might be there" (3)

"it is all surprises really. It is seeing things that you don't expect or seeing things that are different from how you imagined them. ..the stuffed animals in Chamber St. I mean they are enormous and it is just a constant source of amazement to me...I can't go back without checking that they are really that big...just the sort of fascination of finding out things you didn't know. Sometimes it is exciting. Others just interesting....things that you didn't know about and in Durham ..somethings there...and you couldn't believe the age of them. They had these embroideries; there were hundreds of them. And it is not just that they are still in existence, but how did they manage to do anything so fine with bone needles?" " (28)

"..and you think 'fancy them doing that in those days" (20)

"you look at it and you think 'hells teeth!, How did they do things with this sort of stuff" that it is all held together with bits of string and cardboard...that's quite enjoyable" (9)

"there is always something totally unexpected when you go to a museum and you'll see something quite marvelous that you hadn't expected...a sense of magic" (5)

"part of the pleasure is the surprise of what might be there...you can never quite tell what you might find...some of it is just the pleasure of seeing things that you have seen before. I used to go quite regularly to the London museums because I knew that there were certain things there that I like to see them on a regular basis because I admired them...so it can be very surprising but you can also see things that are like old friends" (3)

"been too often (Chamber Street). I know what to expect. It is difficult to become surprised" (26)

continued.....

d) Stimulates your interest in new things

"stimulates my intellectual curiosity. Get books and read up. Nothing too intellectual or career advancing" (20)

"I was learning something new. I learnt a lot of things and felt proud that people from my home town had done so well" (2)

"if it interests you, you read it up in the library the next day" (15)

"you've got to make yourself or you will sit in the house and you aren't learning anything. Sometimes if I'm interested in a dress or something I will get a book from the library and I go back and that to see if it is the same dresses. You can right into it...very interesting" (20)

e) How things have changed and progressed

"it was interesting the equipment they used in comparison with our electrical things" (30)

"it is interesting to see how things have changed and progressed. To see the ingenuity. The models were surprisingly sophisticated" (8)

"the machines. You can see how it has evolved. See the skills of people of the past and the present" (3)

"that's interesting to see how things have changed. It makes you realise just hoe things have moved on. The children were asking questions and comparing now and then" (6)

"you want sufficient information, but not too much. Enough to keep you interested. You want to learn the context and place" (9)

continued.....

f) Enrich/Teach Children

"I take Matthew to Chamber Street occasionally, but I don't enjoy it. I go quite often to the museum of Antiquities but only to have lunch there. We should go more often because it would be education and show (Matthew) that they are there for future reference later on" (18)

"even though I can't really afford it. Do things mostly for him (child), to get him doing things so he is not stuck in the house watching video and that sort. So he gets good stimulation, like taking him to the firestation museum, to see the fire engines.... They have a bit of culture instilled in them. I think that you need to know where you came from to see where you are going in the future. Know the past to appreciate what is ahead of you" (16)

"Museums, I think that they have their place; for the education of children...I went when I was a child" (4)

"I mean I would take the children, but I wouldn't go on my own...children have got to see what is available. As adults we have seen so many things that children have not seen....I take them to museums where things work" (5)

"when we have been away in Cornwall we've been to the steam engine museum..otherwise you would never see them, you may read about them, but to actually see them, to actually go there and be o a steam train...it was part of them growing up and part of their education. Us trying to show them things that we..that they can appreciate what had happened and how things had evolved through time...in a way to improve their standard of education. Stuart is quite keen on history in secondary school and he thoroughly enjoyed that and is still talking about it" (12)

Table 2.2 Continued.....

PERSONAL/ REFLECTIVE/REVERENTIAL EXPERIENCES

a) Reflective/Enrich Own Life

*"you realise **that your life is very fleeting and all the things that have happened before**"* (17)

*"learn something, compare now and then **and appreciate what we have now**"* (22)

*"feel pretty insignificant. You think go this is amazing, they had all this and because of their wealth and it is so different and far removed from my life.... **feel insignificant** compared to all that and **how much of my life is set out and how much easier it is...the feeling of well being** and you **think things through and think life through and think** "yeah this is really nice"* (16)

*"**It helps to enrich your life a bit.** It gives you another perspective... I work in science. It is full of inventiveness, robust dialogue of disagreeing with each other and it is about making a picture of how the worlds works...so it is an extra arm of your own life and what you are doing, which is not something I get from work."* (9)

*"**Broadened your horizons** a bit on what happened or current things. Gives a bit more knowledge and information"* (27)

*"**It puts modern times in perspective**"* (26)

*"I think that you need to know where you came from to see where you are going in the future. **Know the past to appreciate what is ahead of you**"* (16)

*"that's interesting to see how things have changed. **It makes you realise just how things have moved on.** The children were asking questions and comparing now and then"* (6)

"it broadens my life a bit, my interests and horizons. It gives me something else to talk about than what happened in the house or at home" (18)

b) Refreshing/Relaxing:

" you can think things out of your mind" (13)

"makes you feel refreshed" (8)

"it is relaxing. I suppose you are away from the pressure you have been doing all day. Just relaxing" (20).

continued.....

c) Reverential/Quiet:

"you feel as though you are on your own because it is so big and you feel that there is nobody about you, and you travel where you like because nobody bothers about you.. just walk up the stairs and go up... ***The only thing for elderly people it that there is no lift.*** *I can just sit and look at things and there is nobody to interfere with you. Say look at this and look at that. You can go anywhere you like and go at your own time" (20)*

"there are a lot of people, loud mouthing English people, walking around the galleries these days. Scots are usually more quiet and subdued about the way they do things...an you get these two English talkative wives going around the gallery and you could hit them on the head...they upset your concentration and so on" (15)

"it is just away from everything, relaxed, peaceful and a sense of proportion. Not worrying about little things" (17)

"it is that same kind of feeling...maybe I rebel against it..and you are supposed to be quiet and whisper" (30)

g) Satisfaction/Self-Actualisation

"*sense of a worthwhile exercise. Not just wasting time and money... and enjoyed it*" (19)

"really doing something, not just sat about" (28)

"not just wasting the day" (14)

"at least you've made the effort to go out. At least the weekend hasn't passed without you knowing how" (13)

"you have more time on holiday, it is not just a wasted day...you have spent the time travelling and then you are disappointed. It is like a double-edged sword..there is always something else to do if you don't like what you are seeing" (22)

Table 2.2 Continued.....

OPPORTUNITIES TO INTERACT WITH THE EXHIBITION/BRINGS THE PAST TO LIFE

a) Touch and interact with Exhibits

"part of it was the visual pleasure of something you like. I mean one of the great problems of museum is ***not being able to touch things and there is a great pleasure in being able to touch things and feel wood and ceramics; of learning something new"*** *(3)*

" museums are ***a static series of objects.*** *In the theatre you* ***get involved*** *in the play and the people in it and it is more of an intellectual exercise"* (3)

"Impressed with the quality and range of exhibits. I enjoyed the way they were displayed. I was relaxed and enjoyed the way they were presented" (27)

"I remember going to Chamber Street as a child and being enthralled by the exhibits where ***you pressed a button and something moved"*** (19)

"in Chamber Street they (the children) like it. Adam in particular like running around and pushing all these buttons" (27)

"I thought it was very well laid out and presented. There was ***an audio-visual display*** *of the world that we live in and there were exhibits related to that...very well presented and a lot less stuffy than museums were when I was a child where everything* ***was very dead,*** *whereas now I think they are trying to bring things* ***alive, interactive...*** *even the way they display the animals they try to make them appear living. I find it quite interesting the way they displayed the animal...there was a cat catching a bird in flight and seeing it displayed in that way and then things about animals that were becoming extinct.."* (8)

"I'm not too hung ***up on having to interact with the object.*** *I mean those are good for kids. I'm past that stage that I need that* ***type of stimulation.*** *I'm quite happy just to look at them, provided there is adequate information to tell you what is there. Putting the information across in a way that is accessible is very important. I just don't happen to need it. For example music...I could easily get involved in a display explaining musical notation because it is not an area I know anything about"* (9)

continued.....

b) Brings Past to Life/ Providing Context/ Holistic Experience

"it was exciting in the museum in Vancouver. Got some real fun. You'll walk into primeval forest in British Columbia and you actually physically feel it and you realise that you are there. Very realistic. The ***live impression*** *not sitting in glass boxed. It is holistic. They transpose thing and you can actually see the sea and the animal in its context.... The continuous Victorian interpretation...* ***I think it should be set up in a more lively and set up in a more interesting way."*** (15)

"it was just wonderful in the beginning, how it was set up. It was in streets and they've got old shop fronts and some of them you can go in...but there was just too much of it and it was on a one-way system" (28)

"They are becoming more interesting now, ***changing all the articles from behind glass.****. being more adventurous.* ***They've joined the age of technology.*** *The Whiskey museum you sit in barrels and go around. I don't say I like that in all of them but it was quite interesting to see.....Modern museum it is more laid on a plate. You don't have to think"* (19)

"It was informative, ***yet done in a fun way.*** *But it did educate you. It is more interesting having them put in context than just items in a* ***display case.*** *It helps you envisage what life was like rather than just a display case"* (8)

"I think it is better now that they aren't *just in cases and they* ***show us how it used to be and*** *they make a picture of it for people.* ***They are making it much more interesting. Better than going and looking at glass cabinets and that sort of thing. I skipped past the stone collection, if you know what I mean because that is really boring" (16)***

Table 2.2 Continued.....

UNSETTLING AND NEGATIVE EXPERIENCES

a) Relevance / No interest / Can't Relate to / Boring

"I do go to art galleries but feel unknowledgeable. Museums...sometimes they are staid and traditional in how they present. Most museums are not very interesting...feel like a real dummy" (26)

"lots of people are interest in art, although I'm not. I have never been taught to really appreciate it. I can say that's nice, but can't say why" (18)

"I went an awful lot as a child. We seemed to be there a lot. I don't find it interesting. I cannot admit to liking it. My first thought is that they are boring." (6)

"I don't go very often. They bore me to tears. I look at something and it is very nice but I don't find it memorable. I feel museums are places that merely record the past, something of interest to researcher but it doesn't have an impact as painting that are produced for people's pleasure" (5)

"I won't go to a Greek type of museum. ***They just don't interest*** *me. Lots of museum just have* ***rows and rows of dummies and statues of mummies*** *and it just isn't interesting enough. They say some of them "this dates back to 5B.C, 10 BC". So what? Not enough interest. I can't appreciate the Greeks, they were the most civilised and somewhere they stopped being civilised. Whereas the Romans introduced an awful lot of things into everyday life that we still use. What Ddi the Greeks give us except an alphabet?* ***You can't really relate to those Greek museums and Greek figures of the past, you can't really relate to them but you can relate to*** *machinery that was used in factories in the middle of Glasgow in the industrial revolution, you can imagine the wheels clicking around"* (2)

"the palace, there isn't actually anything there. An museum there are pots. It meant nothing to me. Maybe I don't understand how clever they are. To me they are just rock or a broken plant pot" (21)

"Museum of Antiquities didn't have any excitement and there was nothing you could join up with and say 'yeah that means something to me'. Just bits of stone and a little bronze they'd found and it just wasn't the same relationship really". (12)

"if you are going to the Museum of Antiquities, you are going to look at stones and things and if you're into that, but we are not that keen on them and art galleries. I've never been back to the galleries. I wouldn't cross Princes Street. Really it isn't my scene. I don't feel I can appreciate art, especially modern art, whereas I can appreciate what we see in a museum" (12)
"a paining is a painting to me. I can't spot a good one but only one I like. If someone says to me 'that's a Van Gough,' I'd say 'Yeah?', but if you don't like it, it is absolutely worthless to me. I like things to have meaning to them,. That picture of Leith in 1900's. Something you can recognise. If it is good you feel a connection. It is as though you are thinking on the same lines" (11)

continued.....

"stones and stuffed birds and stuffed animals and things like that..and I'm not knowledgeable about nature and on birds which some people are and I mean there are limits to what your brain can absorb" (17)

"it (the museum) *would have to be something I was really interested in, like a golf museum...been to the one at St.Andrews"* (11)

b) Dysfunctional/Functional Museum Exhibits

"I like a decent laid out display with sufficient information. You don't want too much text. If it has 300-400 words its too much. If it has 100-150, you'll read it. So nice clear labels giving sufficient information that keep you interested. I don't like little tiny labels that put it all in code and you know it says circa 1850, it doesn't tell you anything about it at all. Like the sort of people who wore it, how much it was likely to cost. It tells you almost nothing about the context of the thing...you need to see them in sort of context. Okay it is just for the aesthetic pleasure but in a museum these objects have additional value, they have a context and a place and that is what you want to learn about" (9)

"a lot of glass cases and things like that written in Latin and no one comes and explains anything to you. If you go with a tour then it is not so bad....took the children for their education. The children wanted to know everything...children are always asking questions and you felt sometimes that you couldn't tell them because you didn't know and that it not very good.....the embarrassment at not being able to explain things to the children" (21)

"it was difficult to find you way around and it is a sense of not knowing where things are or where you are. Bad labels or badly set out so you can't actually, you don't actually know what you are looking at and they don't answer the questions you wanted to ask...yes that is very annoying..we were in a cathedral and there were these ornate pillars that I had never seen before and there was nothing to tell you about them..and they certainly seemed unusual to me" (28)

"they were rather academic and dry. You really wanted to be able to put things in context" (8) "I was not enthralled. I would have been if they explained them and you weren't rushed through for the next group. I wanted to look around" (21)

"not just cases, they showed how it was lived and made a picture of it, it was much more interesting" (16)

"now they have tried to put a little life back into the rubble to tell you what it is all about...I used to take the kids with me but I am sure they were bored" (22)

"I think it is going to be boring. All the glass cases, bits of flint and porcelain etc. I did like the dinosaur. That was well done" (18)

"continuous Victorian interpretation" (15)

continued.....

"it was laid out well and presented. There was an audio-visual display about the world that we were in and the exhibits related to that. Very well presents and a lot less stuffy than museums were when I was a child. They were trying to bring things to life" (8)`

"I like to see how people lived, but I do get bored. I don't like watching rows and rows of coins or books. The occasional coin or the occasional book, yeah...I like variations in a museum" (2)

"Boring just walking around cages. Feel like a real dummy" (25)

c) Exhausting Vastness

"you are absolutely punched out when you've been at it for 2 or 3 hours and stop taking anything in...gives the feeling that you haven't been able to take it in and appreciate it (3)

"if you pay to get in, I feel that you have to get your money's worth and have to spend ages in there so that your legs are aching and you are completely fed up and then you don't want to go back for months" (9)

"Go very rarely.. I am often put off by museums because there is too much to see, unless you are going to look at a particular thing. I just don't like the scale of the museum and art galleries. I wouldn't feel particularly happy in them because they are so large..you feel satiated" (13)

"Always too much to see, you go and just get interested and then you find time is running out and you go home and promise yourself that you will go back... Just too much in them so you have to concentrate on a few things..you can't take it all in. It would take too much time" (17)

"Chamber street is so vast. You get bored before you've seen it all. It is the type of place you have to do a few times" (19)

"if you don't have enough time...its very irritating" (29)

"it can be a bit of a hike to get around to see all the things you want to see" (3)

"too much to see in York" (25)

"and obviously there is a lot more to see, but we only stayed for a few hours and only got part of the way around the ground floor" (8)

continued.....

h) Crowding/ Unable to See

"I didn't like it when it is crowded and you can't go around at you own pace" (13)

"if it is very crowded and you have to fight. It is not so bad if it is somewhere you can go back to but some of them are so expensive" (3)

"there are a lot of people, loud mouthing English people, walking around the galleries these days. Scots are usually more quiet and subdued about the way they do things...an you get these two English talkative wives going around the gallery and you could hit them on the head...they upset your concentration and so on" (15)

"It is not so much fun when they are really busy. If you are waiting to see a display , you get fed up waiting to get a space to get in and then you feel you have to leave before you have spent a lot of time there so that someone else can get in" (19)

e) Facilities

"you feel as though you are on your own because it is so big and you feel that there is nobody about you, and you travel where you like because nobody bothers about you.. just walk up the stairs and go up... ***The only thing for elderly people it that there is no lift.*** *I can just sit and look at things and there is nobody to interfere with you. Say look at this and look at that. You can go anywhere you like and go at your own time" (20)*

*"They could do with a few more chairs. Art galleries do so that. Being on your feet all the time can be a little tiring" (*9)

f) Memories of Past Visits

"I went an awful lot as a child in school. We seemed to go to the museum a heck of a lot. I don't find it that interesting. I cannot admit to liking them. I have been up to the museum of life a few times but as well, I must can't walk around these places very often. Maybe it is because I was there a lot with the school. It was one of the main events going to the museum in Chamber St" (6)

"I was taken a lot when I was younger and thought it was boring" (17)

TIME, PLANNING AND OTHER RESOURCE ALLOCATION PROBLEMS

a) Time: lack of time and sense of urgency

"when you are on holiday you are determined to get something out of it while you're there. Here you can go anytime" (28)

"when you live in a place, even though it has an interesting history, you just don't take the time to visit" (8)

"I live in one of the most historic cities. I've just never been around it. Basically because mostly it is a touristy thing to do on holiday. It's not necessary to know the history of the people here. It is something you take for granted" (11)

Yeah I have a huge list but it is not urgent" (14)

"it is very much a tourist place and people who stay in Edinburgh for years never go to it, these places" (6)

"you know you will be browsing and it will be the will be the whole afternoon and you won't have done the things you wanted to do" (17)

"I would like to go more, getting time restricts you. It depends how far that comes on the priority list" (11).

"There are other things to do as a family that are higher priorities" (26)

"You can't do everything and I do find that if I do something like that (visit a museum) it stimulate me to do more and its 'have I got enough time?" (18)

"it is getting the time to do these things" (28)

"On holiday..you're just wandering around. You have time, looking what is in the area. Again it is time. You have the time to relax. When at home you have the weekly routine, there is not time to do it ..." (26)

continued.....

b) Expense

"I wouldn't pay a lot of money to get in unless I thought it was something special" (8)

"the amount of money is prohibitive, unless it is for a special occasion" (26)

"the price they charged for children. I think it should be free. It was available and not too expensive. That it was within our price range and fun, anyone could do it. I don't like to feel that I being ripped off" (16)

"quite expensive for the family, especially if they (the children) aren't getting any great enjoyment out of it" (8)

"if it is very crowded and you have to fight. It is not so bad if it is somewhere you can go back to but some of them are so expensive" (3)

c) Planning and Organisation

"you get out of the habit of going. You're not used to doing anything and so put off by bad weather or worrying about where to park the car" (18)

"the effort; getting out of the house, getting organised ...lazy perhaps" (1)

"it is BM and AM, before Matthew and after Matthew. My life has completely changed ...no spontaneity" (18)

"we couldn't do it before because we had to look after Michelle" (12)

"purely domestic reasons.last year we had that tree to cut down and it was a real shambles and Sundays had been taken up with that and domestic things and houseowrk have taken over. I like going on a Sunday but I come back and have the housework to do and if I haven't got it done on Sunday I feel like I'm never going to get it done" (13)

"there has hardly been a Sunday when there isn't golf with you (husband) or Stewart and I work on Saturdays (12)

" so it requires a certain amount of preparation. At the weekend it doesn't matter." (9)

"work, mundane things really, like housework and shopping and things. I wouldn't say it takes priority, but you've still got to do it" (30)

continued.....

d) Need Companions

"I wouldn't really go by myself. It is an activity we have always done as a double act. I have done more background reading than my wife" (15)

"I wouldn't go by myself. It would be too boring...nobody to talk to and discuss what you are seeing" (16)

"it is difficult for two people to be concerned with the same things. I don't find it lonely and fairly often of course you need somebody who is interested as you are in something" (1)

"I mean I would take the children but I would never go on my own" (5)

"Before I got married I went a lot with friends but Mark doesn't like going and so now it is trying to fina friends to go with" (28)

e) Accessibility

"they (museums) are only open in the day time and, you know, I could never get in before and I find now when you're free to go and if it is a dull day and you've got nothing to do here...so that fills in a great deal of time " (1)

i) Transport

"you get out of the habit of going. You're not used to doing anything and so put off by bad weather or ***worrying about where to park the car****"* (18)

"it would be getting the transport there unless there was a trip that was laid on ..because if you were to find your own way by bus it would be a bit of a nuisance, you wouldn't get there the same...you would be looking for places and looking for bus stops" (10)

"don't know if we would go so often if we didn't have the car" (6)

Table 2.2 Continued.....

SITUATIONAL FACTORS

a) Holiday/Touristy thing

"I live in one of the most historic cities. I've just never been around it. Basically because mostly it is a touristy thing to do on holiday. It's not necessary to know the history of the people here. It is something you take for granted" (11)

"when we have friends to stay...do the touristy bit" (27)

"you aren't a tourist in your own place" (24)

"on holiday..go and see the culture and history; you're interested in the culture of the place...just wouldn't go to Chamber St, you're interested in the culture of the place" (13)

"it was the thing you did on holidays, always used to go and see what was in nearby towns" (19)

"more of a day out on a Monday holiday; it is a case of where are we going to go out to?..to do something as a family on a Sunday and think 'we haven't been there'; want to go somewhere different, a change of scenery, see something of history" (12)

"and we'd had a couple of friends to stay and had to do a bit more of the touristy bit...down the Royal Mile, the story of Edinburgh...that's very interesting..just to see what the history of the city...when you live in a place even though it has got an interesting history you just don't take the time to do it" (28)

b) Rainy Day/Looking for Something to Do

"tend not to go very often. If we are on holiday and it is a rainy day and we are looking for something to do" (8)

"regularly go if it's a rainy day to keep them (children) amused and to educate them" (26)

continued.....

"on a Sunday afternoon, we go for a walk and pop in sometimes, just passing" (29)
just go on impulse, see if they have got anything in because they do change the exhibitions" (17)

"if it is a beautiful day you don't want to be in a museum. if it is a cold day then that's not too bad" (21)

"took the children. It wasn't a nice day and we were trying to do something together, that we could all enjoy indoors. Wanted to do something a bit different and that we haven't done for a long time" (8)

"something to do on a rainy day" (19)

"go on Sunday afternoons, if it is not such a nice day we will go to a museum. I like to see it first had other people's work. It is even just somewhere to walk out to" (14)

"It is something I wouldn't think 'I'll go there' something my family has never been into. So I never really got into it. I know it is on the mound and I know I would enjoy it, but I just don't think 'I must do that'"(24)

c) Crowds

"if there are crowds I won't go" (29)

"I always try and wait until everyone has gone away. The numbers put you off" (15)

"Yorvik the queues were ridiculous. Just forget it, because your time is limited" (12)

"I wouldn't queue to get in" (14)

"I wouldn't stand in a queue. I would wait for the buzz to die down, if it was something I was interesting" (4)

Table 2.2 Continued.....

KNOWLEDGE & AWARENESS/ INTEREST

a) Interest

"it (the museum) *would have to be something I was really interested in, like a golf museum...been to the one at St.Andrews"* (11)

"can't appreciate it. I haven't studies it, I'm no good at it and that why I don't like it" (24)

*"if I saw something that jogged my interest, I would make an effort. If it connects with something I have seen or heard"(*1)

b) Need to Know Companions will Enjoy

"the kids aren't interested. We wanted them to be but we mustn't have taken them when they were young...most of the time when you go to the museum it is to use the museum cafe" (22)

"looking after kids, your life takes on a different role..you go on holiday and do things that the kids enjoy" (16)

"when the children were small is was something that we could do together and they would find it fairly interesting and I wouldn't do that now. Now I go mostly because it is something I want to so " (3)

"with a young family you have to consider things with them, like going to parks and things that will interest them..so that quite a limitation on what we can do. There was a children's event a Lauriston Castle and we all went to that. I've been off for the last two days and today we went to the museum and yesterday we went to the zoo. It was actually the first time we'd been to Chamber Street with the children and I haven't been for years... I think the (children) have been with the school.... It wasn't a very nice day and we were trying to think of something that we could all enjoy that was in doors. I suppose we could have gone swimming but we wanted to do something different, something we haven't done in a long time" (8)

continued.....

b) Knowledge and Recommendation

"the emperor's warriors. I mean I raved about it and my neighbour went the next week and hated it" (12)

"lots of friends had been and said how good it was" (8)

"I saw that it had good reviews and it interested me" (3)

"if someone recommends it" (11)

"if I have read about them, heard people talk about them, so I know it is good" (18)

"always look at the gallery slip and weekly Scotsman and see what is on and go down if we take an interest in them" (15)

"well we didn't know about it, it was through the 'cross winds' you know about them..from the club" (10)

Social Normative

"..you think that you should do; someone says that's a good museum or there are then things you should do in this place" (30)

"I tend not to visit museums often. I went to the Louvre in Paris, but it is more that if you are in Paris you have to do it" (8)

"I couldn't really say to my pals 'hey do you want to go to a museum'. They'd think I was cracked. They would think I was mad" (11)

"I stop him from doing a lot of things. I' not interested" (8)

"It is something I wouldn't think 'I'll go there' something my family has never been into. So I never really got into it. I know it is on the mound and I know I would enjoy it, but I just don't think 'I must do that'"(24)

Queen Margaret College
EDINBURGH

Dear

I am a research student interested in leisure activities. For my research programme I would be incredibly grateful if you could spare me a few minutes of your time. I need to find 600 people, from several areas of Edinburgh, who are willing to spend 20 minutes answering a simple questionnaire. The interview would be treated with strict confidentiality. I am selecting names randomly from the electoral register. If you have any queries about my work please contact either myself or Professor Richard Prentice at Department of Hospitality and Tourism Management, Queen Margaret College, Clerwood Terrace, Edinburgh, EH12 8TS. Tel: 0131 317 3582.

I will be visiting your neighbourhood several times over the next few weeks. I look forward to seeing you.

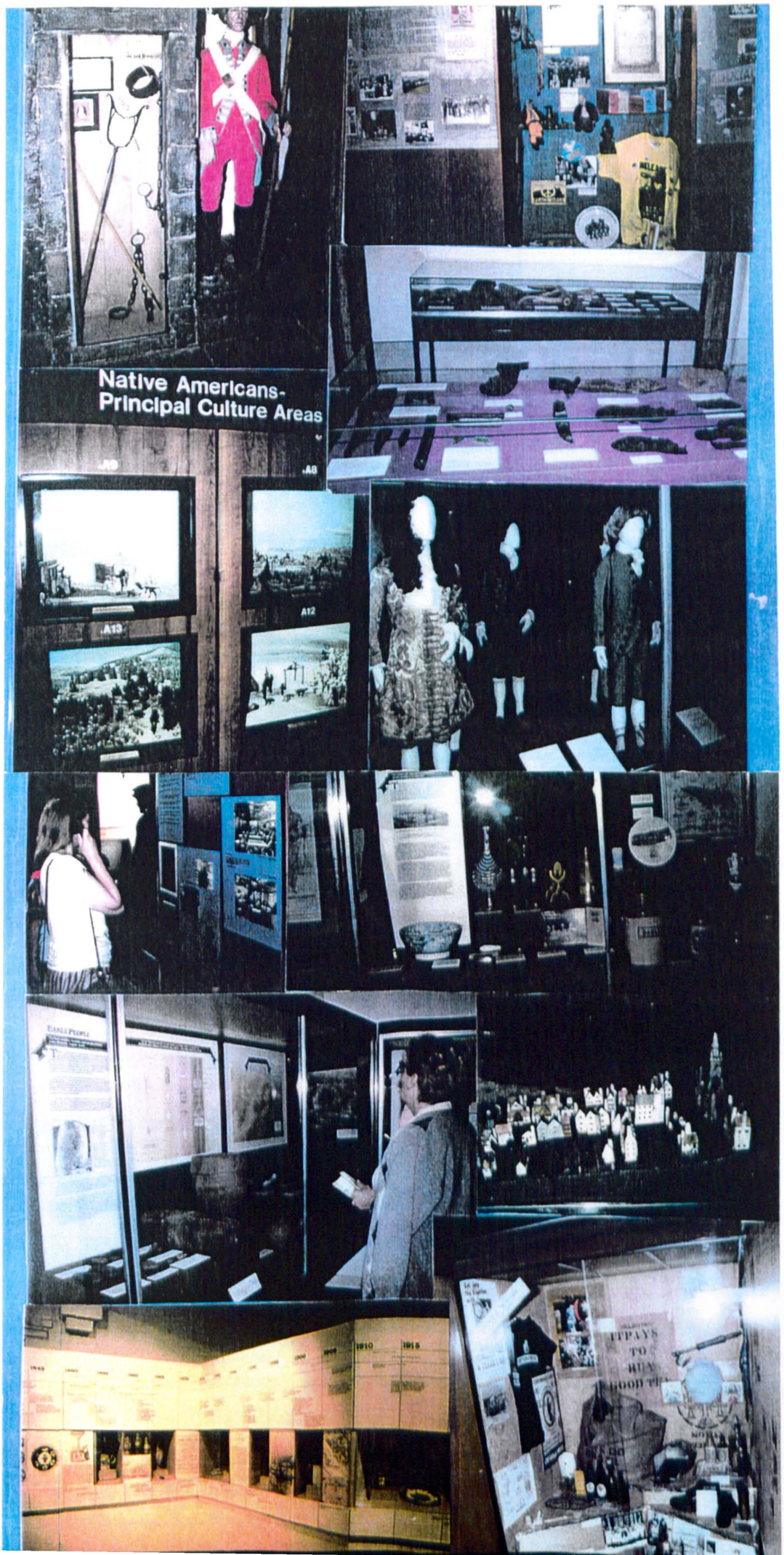
THANK YOU.

Yours sincerely,

A. Davies

Idea-Based Museum

Object-Based Museum



Heritage Consumption Survey
Summer 1995

Andrea Davies
Dept of Hospitality & Tourism Management
Queen Margaret College
Clerwood Terrace
Edinburgh EH12 8TS
United Kingdom

Introduction:

1. Questionnaire Serial Number

2. Museum Stimulus: ☐ Immersed Environment 1 ☐ Static Environment 2

3. Name & Address:

Filter Question:

Before we start can you tell me if you are employed and your job title? (if asked explain this is necessary to ensure my research is representative of a number of different occupational groups)

2a. Job Title:

2b. Please could you tell me you partner's occupation:

If household is not classified as OPCS categoried 1 (professional/higher managerial) or "2" (intermediate managerial), thank the respondent for their time and finish the interview.

I am going to ask you a set of questions that may be a little repetitous but please bear with me as I want to try and get some detailed information. I am going to ask you to use the flip cards so we can wizz through the interview. I realise it may seem a lot but don't worry it will only take 5 minutes to do the the yellow cards at the end.

Section A

Evaluations

A1. Please state how DESIRABLE or UNDESIRABLE you would find each of the following if you were to visit a social history museum in the next 12 months?

☐ Extremely Undesirable	☐ Quite Undesirable	☐ Slightly Undesirable	☐ Neither	☐ Slightly Desirable	☐ Quite Desirable	☐ Extremely Desirable
1	2	3	4	5	6	7

If you expected to ....., how likely or unlikely are you to visit?

feel a sense of discovery and suprise finding out something unexpected	1 2 3 4 5 6 7
feel totally absorbed in what you are looking at	1 2 3 4 5 6 7
see how much things have changed and progressed	1 2 3 4 5 6 7
feel stirred emotionally by what you are looking at	1 2 3 4 5 6 7
feel admiration for the craftsmanship & ingenuity of people in the past	1 2 3 4 5 6 7
feel pleased to have seen the real object	1 2 3 4 5 6 7
feel the past would be brought to life	1 2 3 4 5 6 7
feel a connection with the past & a sense of where you came from	1 2 3 4 5 6 7
create images in your mind of how the objects were used & who used them	1 2 3 4 5 6 7
think about what your life would have been like in the past	1 2 3 4 5 6 7
learn some interesting things	1 2 3 4 5 6 7
find the exhibition makes learning fun	1 2 3 4 5 6 7
find looking at the exhibits would stimulate your interest in new things	1 2 3 4 5 6 7
feel entertained	1 2 3 4 5 6 7
to find out things that you could chat about to friends later	1 2 3 4 5 6 7
have a good time with friends or family who visit with you	1 2 3 4 5 6 7
feel more appreciative of the kind of life you lead today	1 2 3 4 5 6 7
feel satisfied you have done something worthwhile	1 2 3 4 5 6 7
come out of the museum feeling refreshed	1 2 3 4 5 6 7
think about the priorities in your life	1 2 3 4 5 6 7
feel that visits like this enrich your life	1 2 3 4 5 6 7
feel you are enriching the lives of any children you bring along (if applicable)	1 2 3 4 5 6 7
use a) models	1 2 3 4 5 6 7
b) computers	1 2 3 4 5 6 7
c) touch the real objects	1 2 3 4 5 6 7
feel that the exhibits are explained well	1 2 3 4 5 6 7
feel the exhibits have relevance to you & your life	1 2 3 4 5 6 7
could see the point of exhibiting these objects	1 2 3 4 5 6 7
were able to relate to the objects because they are put in context	1 2 3 4 5 6 7
the atmosphere is appropriate to chat with family or friends openly	1 2 3 4 5 6 7
feel you have not seen it all before in other museums	1 2 3 4 5 6 7
feel the exhibits are interesting	1 2 3 4 5 6 7
feel there is not too much information	1 2 3 4 5 6 7
not to be put off by the amount of reading you expect to do	1 2 3 4 5 6 7
feel the exhibits are designed for ordinary visitors	1 2 3 4 5 6 7
feel bored quickly	1 2 3 4 5 6 7
thought you would feel uneasy or uncomfortable	1 2 3 4 5 6 7
feel unsure of where to begin looking at the objects	1 2 3 4 5 6 7
find it is all too tedious because there is so much to see	1 2 3 4 5 6 7
worry that there would not be sufficient facilities such as lifts, ramps, toilets and cafes	1 2 3 4 5 6 7
you would not find it so interesting but it is good for the children	1 2 3 4 5 6 7
feel it will not be like some unpleasant school trip in the past	1 2 3 4 5 6 7

Please Turn Card Over

Hand Clip Board

Please look at these photographs of this museum which has several sections to it. I would like you to think about and imagine what it is like to walk through this museum. Then I'll ask you some questions.

Thinking about yourself walking through the museum in this picture, please could you answer the following questions imagining yourself being there. Remember there are no right or wrong answers; what is important are your own thoughts and feelings.

A2. What are you first thoughts and impressions of this kind of museum?

How else would you describe this museum?

A3. What do you think a typical visitor to this museum is like?

A4. What do you think these people are thinking and feeling when visiting this kind of museum?

Behavioural Intention

A5. Please estimate how likely or unlikely is it that you will realistically visit a museum like this in the next 12 months?

◯ extremely unlikely to visit	◯ quite unlikely to visit	◯ slightly unlikely to visit	◯ neither	◯ slightly likely to visit	◯ quite likely to visit	◯ extremely likely to visit
1	2	3	4	5	6	7

Please Turn Card Over

A6. Please indicate how TRUE or FALSE the following sentence is for you: "All things considered, I do not really intend to visit a museum like this in the next 12 months"

True	◯ extremely	◯ quite	◯ slightly	◯ neither	◯ slightly	◯ quite	◯ extremely	False
	1	2	3	4	5	6	7	

Please Turn Card Over

Beliefs about Consequences of Visiting

A12. If you were to visit a museum like this, how LIKELY or UNLIKELY is it that you would EXPERIENCE the following:

Unlikely to experience — **Likely to experience**

☐ extremely unlikely ☐ quite unlikely ☐ slightly unlikely ☐ neither likely or unlikely ☐ slightly likely ☐ quite likely ☐ extremely likely

1 2 3 4 5 6 7

How likely or unlikely is it that you would EXPECT to .....

feel a sense of discovery and suprise finding out something unexpected	1 2 3 4 5 6 7
feel totally absorbed in what you are looking at	1 2 3 4 5 6 7
see how much things have changed and progressed	1 2 3 4 5 6 7
feel stirred emotionally by what you are looking at	1 2 3 4 5 6 7
feel admiration for the craftsmanship & ingenuity of people in the past	1 2 3 4 5 6 7
feel pleased to have seen the real object	1 2 3 4 5 6 7
feel the past has been brought to life	1 2 3 4 5 6 7
feel a connection with the past & a sense of where you came from	1 2 3 4 5 6 7
create images in your mind of how the objects were used & who used them	1 2 3 4 5 6 7
think about what your life would have been like in the past	1 2 3 4 5 6 7
learn some interesting things	1 2 3 4 5 6 7
find the exhibition makes learning fun	1 2 3 4 5 6 7
find looking at the exhibits would stimulate your interest in new things	1 2 3 4 5 6 7
feel entertained	1 2 3 4 5 6 7
find out things that you could chat about to friends later	1 2 3 4 5 6 7
have a good time with friends or family who visit with you	1 2 3 4 5 6 7
feel more appreciative of the kind of life you lead today	1 2 3 4 5 6 7
feel satisfied you have done something worthwhile	1 2 3 4 5 6 7
come out of the museum feeling refreshed	1 2 3 4 5 6 7
think about the priorities in your life	1 2 3 4 5 6 7
feel that visits like this enrich your life	1 2 3 4 5 6 7
feel you are enriching the lives of any children you bring along (if applicable)	1 2 3 4 5 6 7
to use a) computers	1 2 3 4 5 6 7
b) working models	1 2 3 4 5 6 7
c) touch real objects	1 2 3 4 5 6 7
feel that the exhibits are not explained well	1 2 3 4 5 6 7
feel the exhibits have no relevance to you & your life	1 2 3 4 5 6 7
not see the point of exhibiting these objects	1 2 3 4 5 6 7
find it difficult to relate to the objects because they are not put in context	1 2 3 4 5 6 7
feel bored quickly	1 2 3 4 5 6 7
feel uneasy or uncomfortable	1 2 3 4 5 6 7
the atmosphere is not appropriate to chat with family or friends openly	1 2 3 4 5 6 7
feel you have seen it all before in other museums	1 2 3 4 5 6 7
feel confused and unsure of where to begin looking at the objects	1 2 3 4 5 6 7
find it is all too tedious because there is so much to see	1 2 3 4 5 6 7
feel the exhibits won't be interesting	1 2 3 4 5 6 7
feel there is too much information	1 2 3 4 5 6 7
feel put off by the amount of reading you expect to do	1 2 3 4 5 6 7
feel the exhibits are not designed for ordinary visitors	1 2 3 4 5 6 7
worry that there would not be sufficient facilities such as lifts, ramps, toilets and cafes	1 2 3 4 5 6 7
you would not find it so interesting but it is good for the children	1 2 3 4 5 6 7
feel it will be just like some unpleasant school trip	1 2 3 4 5 6 7

Please Turn Card Over

A7. Using these pairs of words, please tell me the number that best completes the following sentence:

"For me personally to visit a museum like this in the next 12 months would be...."

Useful	☐1	☐2	☐3	☐4	☐5	☐6	☐7	Useless
Unpleasant	☐1	☐2	☐3	☐4	☐5	☐6	☐7	Pleasant
Not enjoyable	☐1	☐2	☐3	☐4	☐5	☐6	☐7	Enjoyable
Beneficial	☐1	☐2	☐3	☐4	☐5	☐6	☐7	Not Beneficial
Helpful	☐1	☐2	☐3	☐4	☐5	☐6	☐7	Not Helpful
Boring	☐1	☐2	☐3	☐4	☐5	☐6	☐7	Interesting

Please Turn Card Over

A8. Please indicate how LIKELY or UNLIKELY it is that most people who are important to you would APPROVE of you visiting a museum like this:

Unlikely	○ extremely	○ quite	○ slightly	○ neither	○ slightly	○ quite	○ extremely Likely
	1	2	3	4	5	6	7

Please Turn Card Over

A9. Please indicate how TRUE or FALSE the following statement is for you: "Most people who are important to you think you should visit a museum like this?"

False	○ extremely	○ quite	○ slightly	○ neither	○ slightly	○ quite	○ extremely True
	1	2	3	4	5	6	7

Please Turn Card Over

A10. Please indicate how LIKELY or UNLIKELY it is that things may HINDER or PREVENT you from visiting a museum like this:

Unlikely	○ extremely	○ quite	○ slightly	○ neither	○ slightly	○ quite	○ extremely Likely
	1	2	3	4	5	6	7

Please Turn Card Over

A11. All things considered, please indicate how EASY or DIFFICULT you find it to actually visit a museum like this:

Easy	○ extremely	○ quite	○ slightly	○ neither	○ slightly	○ quite	○ extremely Difficult
	1	2	3	4	5	6	7

Please Turn Card Over

Social Normative Beliefs

A13. Of the following people, how LIKELY or UNLIKELY are they to APPROVE of you visiting a museum like this in the next 12 months?

☐ extremely unlikely ☐ quite unlikely ☐ slightly unlikely ☐ neither likely or unlikely ☐ slightly likely ☐ quite likely ☐ extremely likley

1 2 3 4 5 6 7

How LIKELY or UNLIKELY is it that .....

a. Your partner would approve of you visiting a museum like this	1 2 3 4 5 6 7	N/A 8
b. Your children would approve of you visiting a museum like this	1 2 3 4 5 6 7	N/A 8
c. Other members of your family would approve of you visiting	1 2 3 4 5 6 7	N/A 8
d. Your friends whose opinions you value would approve of you visiting a museum like this	1 2 3 4 5 6 7	
e. Your work collegues whose opinions you value would approve of you visiting a museum like this	1 2 3 4 5 6 7	N/A 8

Please Turn Card Over

Motivation to Comply

A14. Of the following people, how CONCERNED or UNCONCERNED are you whether these people APPROVE or DISAPPROVE of you visiting a museum?

Unconcerned ☐ extremely ☐ quite ☐ slightly ☐ neither ☐ slightly ☐ quite ☐ extremely Concerned

1 2 3 4 5 6 7

How concerned would you be whether ..... approves or diapproves of you visiting?

a. Your partner	1 2 3 4 5 6 7	N/A 8
b. Your children	1 2 3 4 5 6 7	N/A 8
c. Other members of your family	1 2 3 4 5 6 7	N/A 8
c. Your friends whose opinions are important	1 2 3 4 5 6 7	
d. Your work collegues whose opinions are important	1 2 3 4 5 6 7	N/ A 8

Please Turn Card Over

A15. Please indicate how LIKELY or UNLIKELY it is that YOU would NEED any of the following list IN ORDER TO GET AROUND TO VISITING a museum like this in the next 12 months:

☐ extremely unlikely ☐ quite unlikely ☐ slightly unlikely ☐ neither unlikely or likely ☐ slightly likely ☐ quite likely ☐ extremely likely

1 2 3 4 5 6 7

How likely or unlikely is it that

a) YOU would NEED to.....

find the time to go	1	2	3	4	5	6	7
make sure you had the transport to get there	1	2	3	4	5	6	7
not to be too tired	1	2	3	4	5	6	7
know that it is not going to be an expensive day-out	1	2	3	4	5	6	7
be sure you could park easily	1	2	3	4	5	6	7
know something about the museum	1	2	3	4	5	6	7
have some prior knowledge of the subjects covered by the museum	1	2	3	4	5	6	7
be sure that your companions would enjoy it	1	2	3	4	5	6	7
know that it is on for a limited time so this motivates you to go	1	2	3	4	5	6	7
to change your schedule to suit museum opening times	1	2	3	4	5	6	7
have the time and energy to plan ahead for the visit	1	2	3	4	5	6	7
see it advertised	1	2	3	4	5	6	7
be told by a friend how good it is	1	2	3	4	5	6	7
feel that it is not a touristy thing to do	1	2	3	4	5	6	7
have a few spare hours to make the visit worthwhile	1	2	3	4	5	6	7
more interest han you have in what has gone on in social history or archeology	1	2	3	4	5	6	7
need someone to go with	1	2	3	4	5	6	7

b) it would need

to be a rainy day	1	2	3	4	5	6	7

Please Turn Card Over

Section B

B1. In summary, how similar are the following descriptions to how you would expect to feel when at a museum like this:

☐ extremely similar ☐ quite similar ☐ slightly similar ☐ neither similar or dissimilar ☐ not at all similar

1 2 3 4 5

a) When I stop to think about it, I realise that if I visit a museum like this an important part of my state of mind will be enjoyment. I will get very involved in what I am looking at, I sometimes forget the time. When I feel like this I feel free from boredom and worry. And I feel that I am being challanged in some way.

How similar or dissimilar would you feel in a museum like this?

1 2 3 4 5

b) When I stop to think about it, I realise that if I went to a museum like this I fwould somehow feel that I am doing something I ought to rather than what I would prefer to do. I would be quite conclous of the time spent there. And either it would be hard for me to find the displays interesting or there would not be enough to stimulate me.

How similar or dissimilar would you feel in a museum like this?

1 2 3 4 5

Please Turn Card Over

Section C: Museum Related Behaviour

Now we turn to the yellow cards. The interview will only take 5 minutes from here.

C1. Please indicate the most RECENT time in which you have visited a museum like this:

1 ◯ never
2 ◯ in last 4 years
3 ◯ in last 2 years
4 ◯ in last 12 months *Go to Q3*
5 ◯ in last 6 months *Go to Q3*
6 ◯ in last 3 months *Go to Q3*

Please Turn Card Over

C2. Have you seriously considered visiting a museum like this in the last 12 months?

Yes ◯ 1
No ◯ 2

C3. On average, how often do you visit a museum like this?

1 ◯ never
2 ◯ less than once every two years
3 ◯ once every two years
4 ◯ once a year
5 ◯ 2-4 times a year
6 ◯ 5-9 times a year
7 ◯ over 10 times a year

Please Turn Card Over

C4. How interested were you in visiting museums generally as a child?

☐ extremely interested 1 | ☐ quite interested 2 | ☐ slightly interested 3 | ☐ neither interested or uninterested 4 | ☐ slightly uninterested 5 | ☐ quite uninterested 6 | ☐ extremely uninterested 7

C5. How interested were your parents in visiting museums generally when you were a child?

☐ extremely interested 1 | ☐ quite interested 2 | ☐ slightly interested 3 | ☐ neither interested or uninterested 4 | ☐ slightly uninterested 5 | ☐ quite uninterested 6 | ☐ extremely uninterested 7

Please Turn Card Over

C6. Which, if any, of the following types of museum have you visited in the last 12 months?

◯ history or archeological 1 | ◯ science & technology 2 | ◯ natural history or nature 3 | ◯ themed heritage park 4
◯ art gallery 5 | ◯ none 6

Please Turn Card Over

C7. Please indicate on which occasions you have visited any type of museum in the past 2 years:
(indicate as many as applicable)

1 ☐ as a day trip
2 ☐ when visitors come to stay
3 ☐ when on holiday away from home
4 ☐ when there is a new exhibition
5 ☐ to re-vist an exhibition that I enjoyed
6 ☐ on a rainy day for something to do
7 ☐ for something to occupy the children
8 ☐ other.....

Please Turn Card Over

C8a. How frequently did you visit a museum as a child with your school?

◯ never 1 | ◯ once a year or less 2 | ◯ 2-3 times a year 3 | ◯ 4 or more times a year 4

C8b. How frequently did you visit a museum as a child with your family?

◯ never 1 | ◯ once a year or less 2 | ◯ 2-3 times a year 3 | ◯ 4 or more times a year 4

Please Turn Card Over

C9. Please indicate if you have undertaken any of the following activities:

1 ◯ researched my family tree
2 ◯ been to an historical re-enactment
3 ◯ read historical non-ficton books
4 ◯ been to history-based evening classes
5 ◯ been on guided walks or tours
6 ◯ joined a historical organisation
7 ◯ kept a collection of somekind
8 ◯ watched historical T.V. programmes ◯ Doc ◯ Fiction
9 ◯ watched science & technology programmes
10 ◯ watched wildlife programmes
11 ◯ watched antique programmes
12 ◯ joined a wildlife or environmental organisation

C10. Have you ever studied social history or archeology? If so, to what level?

C11. Please complete the following sentence: " I wish museums weren't so....."

C12. Please complete the following sentence: "I would be more likely to visit museums if they were ....."

C13. Please complete the following sentence: "I would be more likely to visit museums if I were ....."

Section D: Other Lesiure Behaviour

D1. What are your leisure pastimes both outside and within the home?

D2. Which is the most important to you?

Please Turn Card Over

D3. Please indicate which of the following make this activity important to you:

1 ☐ competitiveness
2 ☐ being in the outdoors
3 ☐ being part of a club
4 ☐ release of energy
5 ☐ excitement
6 ☐ challenge
7 ☐ restfulness
8 ☐ getting away from it all
9 ☐ entertainment
10 ☐ emotionally moving
11 ☐ sociability
12 ☐ mentally stimulating
13 ☐ other.....

D4. Do you get any of these from visiting a museum visit? ☐ no 1

1 ☐ competitiveness
2 ☐ being in the outdoors
3 ☐ being part of a club
4 ☐ release of energy
5 ☐ excitement
6 ☐ challenge
7 ☐ restfulness
8 ☐ getting away from it all
9 ☐ entertainment
10 ☐ emotionally moving
11 ☐ sociability
12 ☐ mentally stimulating
13 ☐ other.....

D5. Do you have any regular leisure commitments? 1 Yes ☐ **What?.....** 2 No ☐

Section E: Demographics Information

To help me clarify your answers statistically, I would like you to answer a few questions about yourself and your family.

E1. Respondent's Gender

☐ male 1
☐ female 2

E2. Please indicate which categories described your age:

○ 16-24 1 ○ 25-34 2 ○ 35-44 3 ○ 45-54 4 ○ 55-64 5 ○ 65-74 6 ○ 75 and over 7

E3. Are you married/co-habiting or single?

○ married/co-habiting 1 ○ single 2

Please Turn Card

E4. Which of the following best describes your household?

1 ○ living alone
2 ○ single & living in shared accomodation
3 ○ living with partner but have no children
4 ○ dependent children under seven years old
5 ○ dependent children seven years and over
6 ○ non-dependent children living at home
7 ○ children have left home
8 ○ other.....

E5. How many cars do you have in your household?

☐ none 1 ☐ one 2 ☐ two 3 ☐ three or more 4

E6. Do you read any newspapers on a regular basis? If so, which? ☐ No

Daily Newspapers

☐ Scotsman
☐ The Evening News (Edinburgh)
☐ The Evening Press (Aberdeen)
☐ Press and Journal (Aberdeen)
☐ Herald (Glasgow)
☐ Glasgow Evening Times
☐ Daily Record
☐ The Courier & Advertiser (Dundee)
☐ Evening Telegraph (Dundee)
☐ Daily Telegraph
☐ Guardian
☐ Times
☐ The Independent
☐ Financial Times
☐ Today
☐ Daily Star
☐ Daily Express
☐ Daily Mirror
☐ Daily Mail
☐ Sun
☐ Evening Post

Sunday Newspapers

☐ Sunday Mirror
☐ The People
☐ Sunday Express
☐ Mail on Sunday
☐ Sunday Times
☐ Sunday Telegraph
☐ The Observer
☐ Independent on Sunday
☐ Scotland on Sunday (Edinburgh)
☐ Sunday Mail
☐ Sunday Sport
☐ News of the World

Local Newspapers

☐ Herald & Post

☐ Others .....

.....

Please Turn Card

19th October 1995

Multiple Index to Represent Degree of Middle-Class"ness"

Formula:

$$M = R + S$$

Where:

$$R = \frac{3(a+b+c) + 6(f) + 2(g)}{5-x}$$

$$S = \frac{3(d+e)}{2-x}$$

Where: M= degree of middle-class"ness"
R= respondent derived middle-classness"
S= socialisation derived middleclass"ness"
a=own occupational group of respondent
b=spouse's occupation
c=education level completed by repondent
d=education level completed by parents
e=father's occupation at aged 10
f=self-graded social class
g=income

Rationale of Formula:

* To ensure each variable has equal contribution to the index, the values of each variables will be divided equally over a 12 point scale, i.e. values are converted into a 12 point scale. A 12 point scale is used because this is the lowest common denominator of the number of values for each variable.

* To compensate for missing variables in the index, the total value of all variables measured on a 12 point scale will be divided by those number of variables contributing to the index.

* The Index, as given above, has two separate entities: The first bracket represents those factors dervived directly from the repondent which contribute to middleclass"ness". The second bracket represents socialisation factors that contribute or detract from midllecalss"ness". Computed in this way, the R and S may be weighted differently, if this seems appropriate, and additionally, newness of middle-class"ness" can be derivied by subtracting S from R.

Values of Variables to be Used in Index:

Variable a: Own Occupation

4= professional/higher managerial
3= intermediate managerial
2= students
1= clerical
0= manual work
x= missing variable

*** missing values will be entered as x but have an arithmetic value of zero**

Included in the index because occupational groups are frequently used as a proxy measure of social class. They are a summary of peer group affiliation, level of education or training, metal agility, and disposable income.

Variable b: Spouse's Occupation

4= Professional/higher managerial
3= Intermediate Managerial
2= Students
1= Clerical
0= Manual workers
x= Missing Variable

Included in the index because the spouse's occupation and inferred social class may affect the respondents frame of reference and therefore behaviour.

Variable c: Education Completed

4= professional post-degree/higher degree
3= first degree
2= higher education below degree
1= GCSE or equivalent
0= none
x= missing variable

Educational level is included as past research has shown a relationship between visiting behaviour and educational levels.

Variable d: Education Completed by Parents:

4= professional post-degree/higher degree
3= first degree
2= higher education below degree
1= GCSE or equivalent
0= none
x= missing variable

Educational level completed by both parents is included to show possible socialisation factors affecting present museum visiting behaviour.

Variable e: Father's Occupation at Aged 10

4= Professional/higher managerial
3= Intermediate Managerial
2= Students
1= Clerical
0= Manual workers
x= Missing Variable

Included to represent socialisation factors, such as peer group association, level of disposable income and a tradition of social normative pressure within the family, which may influence current museum visiting behaviour.

Variable f: Self-Graded Social Class

2= upper middle class
1= lower middle class
0= working class
x= missing value

Included as a subjective feeling of association to the middle-classes.

Variable g: Income

6= 50,000 or over
5= 35,000-49,999
4= 25,000-34,999
3= 15,000-24,999
2= 7,500-œ14,999
1= under 7,499
x=missing values

Income is include to represent amount of disposable income available. It does correlate heavily with occupation, and to a lesser degree, educational level achieved.

As the joint income of married or cohabiting couples was collected, the value scored by couples will be divided by 2 to compensate for single people being under-represented on income in the index. Dividing this joint income level by two is a rough means to approximate disposable income for the household. This level is, however, arbitrary and may be moderated to a value of 1.5, 1.6, or 1.8 in the future.

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Conceptualizing the latent visitor to heritage attractions

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This paper focuses on the attraction basis of tourism, and addresses the neglected issue of latent demand for visits to museums and other heritage attractions. It considers the existing literature on consumer decision making to be inadequate in its application to museums and other heritage attractions, and especially in terms of latent demand. Indeed, the paper argues that other literatures need to be consulted to construct a model of consumer decision making appropriate to museums and other heritage attractions, focusing on latent demand. Such a model, the 'columnar' model, is proposed, and the potential usefulness of the model in segmenting latent demand is outlined as a basis for 'product' development and promotion.

Keywords: heritage attractions, leisure non-visitors, motivation, constraints, segmentation

If a tourist is asked why he or she does *not* do something (say, does not visit an attraction) one reply may be 'lack of interest'. For product development and promotion we need to ask what this summary reply really means. It may be that the tourist genuinely lacks interest in an attraction or activity, not finding the attraction or activity cognitively stimulating; equally, the expression of lack of interest may be a rationalization of constraints, rather than true lack of interest. In the latter case 'lack of interest' really conceals the underlying motivations and constraints to behaviour. Similarly, other summary responses such as 'lack of time' may conceal the real reasons for not visiting. Jackson[1] and others have noted that lack of time and money may not be barriers but excuses for non-participation. Such tourists are properly thought of as latent visitors to an attraction and in aggregate as latent demand.

To date most tourism and leisure research on museums and other heritage attractions has concentrated exclusively on the visitor, largely ignoring the non-visitor, and thereby missing the potential both for market development and the social welfare gains obtainable through broadening the visitor profile and attracting more of those potential visitors at present only latent in the customer profile of attractions. Exceptions include Prentice[2] who studied visitors turning away from the gates of attractions and looked at price as a deterrent of visiting; Prince and Schadla-Hall[3] who identified non-visitor perceptions (images) of museums as factors influencing decisions to visit; and Prince[4] who examined non-visitors' suggestions for museum improvements likely to stimulate visiting. These studies highlight a lack of systematic, comprehensive and conceptual knowledge of non-visiting behaviour to heritage attractions. In view of the comparative neglect of studying non-visitors, the principal aim of this paper is to focus on the non-visitor to heritage attractions, attempting to develop a conceptual model of non-consumption leisure behaviour and a typology of non-visitors.

Most heritage literature to date has described demand as a basic dichotomy of visitors and non-visitors. A notable exception was Hood[5] who, in discriminating visitors in terms of frequency of visits, rejected the long-held belief that only two audience segments exist for museums and defined heritage demand as the sum of frequent visitors, occasional visitors and non-visitors. However, more generally, our understanding of latent demand has been limited by non-visitors being identified solely as a generic group in the literature. More usefully, the non-visitor segment can be refined to include segments of those who never visit and never contemplate visiting, those who never visit but who do contemplate visiting, those that have visited once but subsequently have never visited heritage attractions, and those who infrequently visit.

Non-visiting of heritage attractions

As noted above, there has been only very limited research into *non-visiting* behaviour in the museum and heritage market. This research has largely identified 'concrete' reasons and constraints[6–9] and is supplemented by insights from speculative theories such as lower propensity to visit[10] and heritage dismissiveness[10]. 'Concrete' describes a low level of abstraction in an individual's cognitive structure and corresponds to 'means' (leisure attributes and the consequences of leisure consumption) in the *Means–End Chain* theory proposed by Gutman.[11] For example, a 'concrete' reason may be 'heritage attractions are somewhere worthwhile to take my children at the weekend', whereas the abstract or 'intrinsic-terminal' reason associated with this response might be 'taking my children to heritage attractions makes me feel I am a responsible parent and I feel good about myself'. Intrinsic-terminal reasons correspond to the abstract needs and benefits individuals seek to satisfy their personal values, those centrally held and enduring beliefs or end-states of existence consumers seek through consumption behaviour.[12] Intrinsic-terminal reasons as benefits are fundamental to individuals and conceptually guide behaviour explicitly or implicitly.

'Concrete' reasons dominate the literature. For example, Cragg Ross & Dawson *et al*[6] identified a number of concrete reasons and constraints for not visiting built heritage. Popular responses included constrained domestic circumstances such as lack of time due to work and domestic responsibilities, lack of money and low general morale, as well as lack of habit and not thinking of visiting, competition from other activities, lack of transport, negative perceptions of historic sites as 'ruins', as 'always the same' and as 'only for tourists'. Further responses included young children not wanting to visit, bad childhood experiences, the possibility of bad weather, a lack of awareness, and no urgency to visit attractions perceived as permanent and unchanging.

Similarly, focus groups of arts non-participants[9,13–15] have identified a similar profile of reasons and constraints, which were classified by the Arts Council of Great Britain as practical, educational and emotional constraints. Adding to the practical constraints identified above are those practical constraints of limited access associated with not owning a car, poor or no public transport, transport costs, security and a reluctance either to travel on public transport or to walk the streets at night, a lack of energy after work and babysitter expenses. Educational and emotional constraints include those of a perceived lack of educational introduction (socialization), an inability to understand and perceptions of class distinction. Such studies offer insight into the antecedents of non-visiting behaviour yet no distinction in such lists is made between motivational reasons and other constraints, or the relationship between them in constraining visiting.

A notable exception to this attention to 'concrete' reasons is the work of Hood[5] now over a decade ago. Hood considered American non-visitors' motivation in respect of museums and concluded that individuals' 'leisure agendas' were the key to understanding visiting and non-visiting behaviour. The concept of 'leisure agendas' follows the expectancy-value theory[16] and as such represents the sum of those valued leisure attributes capable of satisfying leisure needs. 'Leisure agendas' were found to differ by visiting status, childhood leisure socialization and perceptions of museum experience benefits. Non-visitors' leisure agendas included being with people (social interaction), participating actively, feeling comfortable and being at ease in their surroundings, attributes they did not perceive in the museum experience. Non-visitors saw museums as formal, formidable and inaccessible places that restricted both social interaction and active participation; as such, non-visitors were *negatively motivated* towards museum visiting. In other words, museums were perceived as offering experiences non-visitors sought to avoid. Lack of museum socialization was highlighted as the reason for non-visitor perceptions of museums as inaccessible and anxieties such as the inability to understand the 'museum code'.

Museum visitors, in contrast, stressed the opportunity to learn, the challenges of new experiences and of doing something worthwhile in their leisure agendas. Visitors saw museums as capable of satisfying these leisure needs; and in general visitors had been socialized as children into the museum environment. Occasional visitors, contrary to what is generally presumed, were distinctly different from frequent visitors and more akin to non-visitors in their leisure agendas and socialization. Not being socialized as children into cultural activities they valued activities emphasizing active participation, entertainment and social interaction in their leisure agendas and, as such, occasional participants valued family-centred activities and comfortable leisure surroundings and reserved museum visits for special occasions.

Most recent research attention into the reasons for visiting, from which insight into non-visiting might be obtained, has been equally 'concrete' in its focus.[13,17–19] Reasons given for visiting which have been found to be common to a range of heritage sites include: to see the particular site, an educational interest, to be with family and take children out, being on an organized trip, to go for a walk, to walk the dog, because of good weather, visiting friends and relatives and just wanting to go out somewhere.[20] Likewise, over a decade ago, Alt[21] found general interest and curiosity, somewhere to bring the children for educational purposes or as a family

outing, to see something specific, sightseeing, to revisit because enjoyed last visit, and to be with family and relatives as reasons for visiting. However, lists of this kind provide little insight into the hedonistic and possible intrinsic-terminal benefits sought from heritage experiences, such as emotional thrill or family bonding.

In contrast, some recent qualitative research has classified art attenders by more abstract reasons and benefits sought[17] and provides some direction for future research. Entertainment seekers sought amusement and arousal of curiosity or emotion. Self-improvers sought personal development from the arts. Trend-setters saw the arts as a means of identifying with an 'élite minority'. Status-seekers attended arts events to demonstrate their financial ability to patronize arts and their aesthetic taste. Lonely-escapists attended arts events to escape the solitude of their own company. Inspiration/sensation seekers sought sensual and emotional excitement. For social attenders the arts enabled them to socialize with peer groups. Even so, such studies do not capture the more abstract intrinsic-terminal motives for heritage visiting.

Such motives are, however, beginning to be identified. For example, Prentice[10] suggests that the visitor experience extends beyond the time of visit and can be spatially divorced from the attraction itself, alluding to theories of fantasy as well as symbolic and derived consumption. Prentice *et al*[22] examined visitor endearment to a heritage region as a long-term benefit and Leichter *et al*[23] suggested some longer term impacts of museum visits on family life, including initiating family discussions. Kelly[24,25] and others have suggested that cultural tourism provides status-signalling experiences and benefits which visitors used to consolidate their actual and desired social position and, finding that approximately one-third of visitors to several major museums across the world never entered the gallery, suggested that for some these status-signalling souvenirs and other cultural experience markers assume more importance than the actual visiting experience.

Attention to more intrinsic reasons for visiting is important for our understanding of latent demand, for, by providing a more thorough understanding of heritage visitors' fundamental motivations (intrinsic-terminal needs, hedonic needs, perceived benefits and satisfactions) and by developing general leisure motivational profiles, motivational research offers the potential to compare visitor and non-visitor motivational profiles to see whether reasons for consumption and non-consumption vary significantly. However, before such developments can easily be effected a conceptual system, or model, is needed whereby latent demand can be described. The outline of such a model is now attempted.

The proposed 'columnar' model of latent demand for museum and heritage visiting

In view of the insufficiency of past research into motivations and constraints in heritage consumption, literature from other applications and relating to other types of activities (such as sports, hobbies etc) needs to form a starting point for methodological and conceptual development concerning latent demand in heritage tourism. Pertinent literature has evolved across a number of disciplines and focuses on three aspects of non-visiting behaviour: (1) behaviour, participation and non-participation in leisure activities; (2) motivation, positive and negative motives for leisure participation; and (3) reaction to constraints, whether constraints are perceived and if they are overcome. Together these three fields, illustrated in *Figure 1*, depict both the antecedents of behaviour and that behaviour actually observed. A model integrating these fields as layers is proposed in *Figure 2*. The model shown in *Figure 2* depicts each literature base relevant to heritage tourism as one layer of a three-dimensional elongated cuboid. Layer 1 represents behaviour and defines heritage visiting (leisure participation) and heritage non-visiting (leisure non-participation): it is the layer most frequently observed. Layer 2 depicts reaction to constraints and defines situations where constraints are perceived and not overcome and situations where no constraints are perceived or constraints are overcome. Layer 3 depicts motivation and defines positive and negative motivation towards leisure participation: it is the least easily measured.

These three levels imply the utility of defining latent demand for heritage attractions by refining generic categories of non-visitors and occasional visitors on measures of both their motivations and constraints. Crucial for a research agenda addressing the non-visitor is to understand the relationship between motivations and constraints and whether positive and negative motivations can increase or decrease the effects of constraints and vice versa.

As the quadrants at each layer of *Figure 2* can be linked sequentially and thereby appear diagramatically as columns, the model is termed the 'columnar' model of latent demand. The proposed 'columnar' model in *Figure 2*, when read vertically, explains how non-visiting and visiting behaviour (Layer 1) is the product of both motivation (Layer 3) and reaction to constraints (Layer 2). This is shown in *Figure 3*. For example, Column A, in *Figure 3*, describes Type A non-visitors who have positive motivation towards visiting heritage attractions but experience constraints they cannot overcome. Column B represents non-visitors who hold negative motivations towards visiting heritage but who either do not perceive constraints or are able to overcome them. Column C describes non-visiting behaviour where

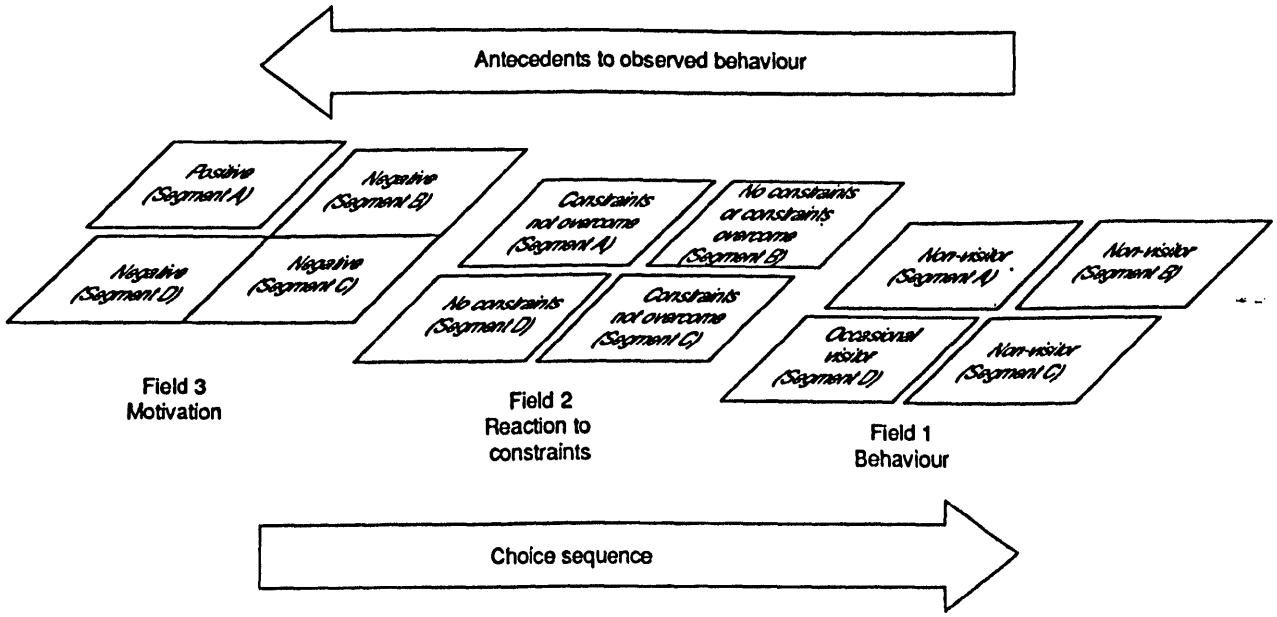

Figure 1 Three conceptualizations of latent demand

negative motivations towards visiting heritage attractions are compounded with perceived constraints which individuals are unable to overcome. Column D depicts visitors to heritage attractions who have negative motivations towards visiting and because they do not perceive constraints do visit infrequently. The model does not imply that individuals are rational in their leisure choices, rather the model represents a structure that approximates to the antecedents (or choice process) of non-visiting and occasional visiting behaviour. Conceptually, therefore, each column is a block of three layers and, in total, the four columns of three layers make up an elongated cuboid which describes latent demand for heritage attractions and offers a typology of non-visitors.

One utility of this model is its ability to illustrate 'intraction' and interaction between the three layers. As noted above, the *interaction* of Layers 2 and 3 results in a typology of non-visitors and occasional visitors. Potentially more pertinent to our understanding of non-visiting is the capacity of this model

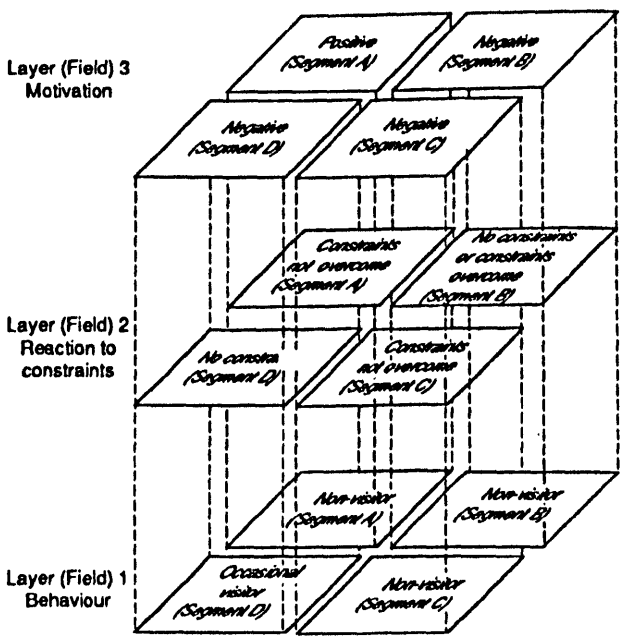

Figure 2 The three conceptualizations of latent demand integrated as layers

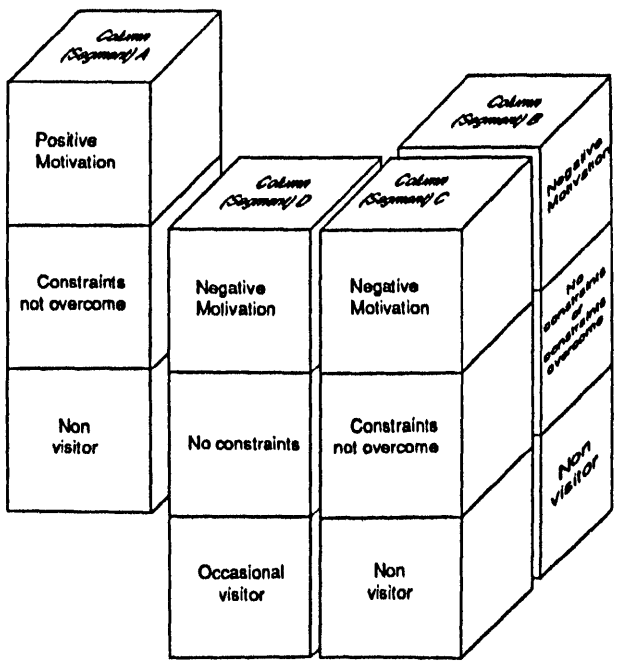

Figure 3 The columns of latent demand

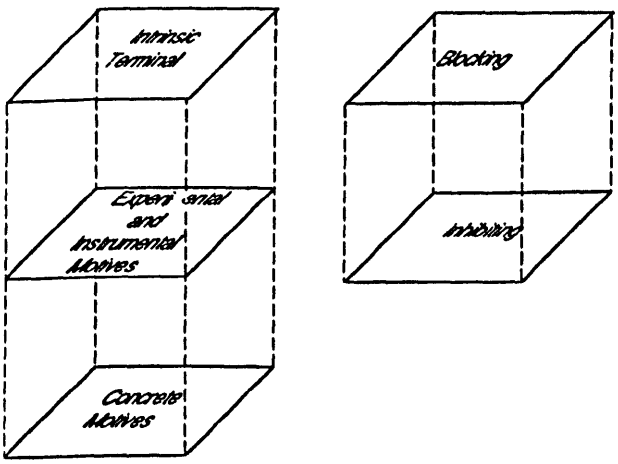

Figure 4 Expansion of the layers of latent demand

to illustrate the negative relative strength of motivation coupled with reaction to constraints for each type of non-visitor identified in predicting or inhibiting visiting. For example, for Type A non-visitors represented by column A, constraints are more powerful in precluding participation than motivations which are actually positive. For Type B non-visitors (column B), constraints are surmountable and have relatively little influence in preventing visiting compared with negative motivations. For Type C non-visitors (column C), negative motivations are of equal strength to insurmountable constraints in preventing visiting. For occasional visitors (Type D) constraints are minimal and although motivations are negative sometimes the individual does visit.

'*Intraction*' within each level for each type of non-visitor can also be illustrated through the model. Layer 2 can be divided into sub-levels to show the hierarchical nature of constraints in blocking participation. For example, awareness which Godbey[26] identifies as the pre-eminent constraint on participation would be at the top of this hierarchy.

Similarly Layer 3 can be sub-divided to show the hierarchy of demand from the concrete level of leisure attributes to the intrinsic-terminal level of benefits. *Figure 4* illustrates 'intraction' diagramatically.

The potential of the three layers in terms both of their interactive and 'intractive' pertinence to framing a research agenda into non-visiting of heritage attractions is best demonstrated by considering each layer in some detail. This is where we now turn in the discussion.

Layer 1: Behaviour

Behaviour is the easiest of the three layers to observe, and therefore needs the least discussion here. The potential heterogeneity of non-participants and participants is implicit in the interaction of this layer with other typologies. Wall,[27] describing actual and latent recreational demand, sub-divided latent demand into two groups: potential demand, those individuals who would like to participate but are constrained financially or socially; and deferred demand, those individuals able and willing to participate but for whom constraints such as lack of facilities or knowledge prevent participation. Both deferred and potential demand presume positive motivation is suppressed by intervening constraints. Jackson and Dunn[28] extended Wall's typology of latent demand to include those non-participants who have *no interest* in participating and as such are *negatively motivated*. By further sub-dividing potential, deferred and not interested participants by participation history, Jackson and Dunn suggested six types of non-participants. Backman and Wright[29] offered a typology of non-participants based on interest and participation history and identified four types of non-participants: those who have never participated and have low interest, those who have never participated but are interested, former participants with low interest and former participants who are interested.

Additionally, as latent demand includes both non-visitors and occasional visitors, it may be described in terms of regularity and frequency to include infrequent-regular visitors, infrequent-irregular visitors, those who have never visited and have contemplated visiting, those who have never visited and never contemplated visiting and those who have visited once but subsequently have never visited. Such enhancements can be incorporated into the model. Although in *Figure 3* the columnar model focuses on latent demand, an extension of the cuboid to include other categories of visitors, for example frequent-regular visitors, would enable the model to explain the total demand for heritage experiences.

Layer 2: Reaction to constraints

Quite a substantive literature has been developed on barriers, constraints and other reasons for non-participation. This literature demonstrates that constraints not only affect participation but also enjoyment, satisfaction, continuing participation and increases in participation. Barriers to participation have been found to differ from both those constraints limiting participation and those leading to ceasing participation, thereby suggesting that constrained leisure is not an internally homogeneous concept.[30] Of prime interest in applying the columnar model of latent demand in museum and other heritage visiting are constraints that impede visiting for individuals who have never visited, constraints inhibiting former visitors, constraints perceived and overcome by infrequent visitors and how these constraints differ. These constraints implicitly define the

segments within Layer 2 of the model, with potential 'intraction' between them.

Constraints have been characterized in the leisure literature by multidimensional heterogeneity;[31] how they vary across a number of leisure activities;[32] their influence at a number of points in the decision-making process;[1] and their ability to reduce the number of available alternatives when encountered at each stage of the decision-making process.[33] Several conceptual distinctions between types of constraints useful in explaining individuals' reactions to constraints in Layer 2 of the columnar model have been offered and include: a 'hierarchical' distinction of constraints;[26] the differing ability of 'blocking' and 'inhibiting' to preclude participation totally;[33–35] and 'external' constraints as those attributable to the environment compared with 'internal' constraints which are those attributed to the individual.[36–39] Also of potential use is the concept of 'resourcefulness', the identification of barriers to leisure and the ability to develop strategies to overcome them.[40,41] Resourcefulness can be presumed to vary between groups.

The origins of perceived barriers and constraints identified by individuals are fundamental to our understanding of constrained behaviour, and may be conceptualized as a further sub-layer of Layer 2. Parental influence has been identified as a strong barrier to participating in a new activities and significant other adults as influential in an individual's decision to cease participation.[42] Other studies have examined family life-cycle,[40] gender differences[43] and socio-economic variations.[37]

Layer 2 needs also to be seen as interacting with Layers 1 and 3, and particularly the latter. Relationships between preferences, barriers and participation in leisure activities need to be considered.[44] Both intrapersonal and interpersonal constraints determine preferences; however, interpersonal constraints intervene between preferences and participation, as do structural constraints. Similarly, there is a need to distinguish between 'antecedent' and 'intervening' constraints by their relationship to preference formation.[45] Henderson *et al*[43] defined antecedent constraints as 'attitudes associated with an *a priori* recreation situation such as personal capacities, personality, socialization factors, interest etc'. Kleiber and Dirkin[46] included individuals' predisposition to experience leisure, stimulation seeking or avoidance, attentional style and socially based traits such as achievement motivation and locus of control as antecedent constraints. Other research identifies perceived competence, lack of information, biased information and social norms to add to the profile of potential antecedent constraints. Antecedent constraints, intrapersonal constraints and those interpersonal constraints that determine preference are motivational-based constraints associated with negative beliefs in the expectancy-value model of motivation and as such are more appropriately included as antecedents of negative motivation (Layer 3) in the columnar model.

Layer 3: Motivation

In contrast with the dearth of motivation-based information on heritage consumption a wealth of literature has developed over the past three decades in the leisure and tourism fields pertaining to other activities. Evidence suggests that leisure behaviour follows *expectancy-value attitude theory*[16] which specifies that the strength of an individual's tendency to visit (not to visit) museums and other heritage attractions depends upon the strength of the *expectancy* or *belief* that visiting will be followed by consequences *valued (not valued)* by the individual. As such, visiting heritage attractions results in experiences and benefits which individuals value positively or negatively, depending on the perceived ability of these to fulfil leisure needs, and motivation to visit heritage attractions can be described as either positive or negative. Positive motivation results from the belief that expected valued consequences (experiences and benefits) will satisfy needs. Conversely, negative motivation occurs when no match exists between consequences perceived in heritage visiting and individuals' leisure needs. Lack of interest is one example of negative motivation. In such a case an individual's beliefs about an antiquities museum may, for example, include beliefs that antiquity museums constitute glass boxes, illegible Latin descriptions that do little to help him or her understand what he/she sees, and rows of cracked pots resembling unwanted garden rubbish. As such this individual negatively evaluates his or her beliefs, judging that the consequences associated with visiting will not promote cognitive arousal. Equally, negative motivation may result when individuals believe that visiting a heritage attraction will produce consequences they seek to avoid, such as intellectual anxiety, boredom or a diminished self-concept.

Evidence suggests that needs, benefits and motives are hierarchical. The Manning–Haas hierarchy is one such system, focusing on leisure product management through a consumer focus.[7,47–49] The first level in the hierarchy is the demand for activities. Individuals demand activities which take place in environmental, social and managerial settings, the second level of the hierarchy. Activity settings determine recreational opportunities which provide leisure experiences (the third level of the hierarchy). Satisfying leisure experiences produce ultimate psychological and societal benefits (the fourth level of the hierarchy). Manning presumes leisure behaviour follows the utilitarian or instrumental model of behaviour, stating that leisure behaviour can be seen as more a means to an end than as an end in itself.[47] The Manning–Haas model of demand has not been revised in light of the increasing number of

studies which, over the last decade, have focused on and developed the experiential model of consumption in an effort to explain behaviour that is intrinsically motivated and imbued with immediate hedonistic benefits.[50–54] For experiential motivation, no demand for level 4 'benefits' in the Manning–Haas hierarchy exists; the hierarchy is only valid to level 3 for experientially motivated individuals. In light of this the Manning–Haas hierarchy must be redefined to incorporate the distinction between experiential and utilitarian motives. A second hierarchical system concerns the Means–End Chain[9,55] in which the relationship between tangible attributes and intangible benefits, needs and personal values individuals seek to satisfy are linked. The Means–End Chain theory and the Manning–Haas hierarchy are comparable in that they both serve to demonstrate the hierarchical nature of motivations. These studies began the identification of experiential and intrinsic-terminal needs and motives for leisure, and explain both how individuals perceive leisure experiences and benefits and how these perceptions are organized in cognitive memory structures. Such studies offer a means of structuring Layer 3 in the columnar model into sub-levels corresponding to the hierarchical nature of heritage motivation.

Over the last two decades a substantial number of studies have identified the more concrete motives and benefits sought through leisure demand.[56–61] Other studies have examined the experiences gained from leisure participation corresponding to the third level in the Manning–Haas hierarchy of demand and highlight the hedonistic nature of leisure consumption.[62–65] Recently, research has focused exclusively on the social needs, psychological needs and motives of leisure demand. Such studies have identified the abstract benefits gained from high-risk sports;[66,67] and leisure activities as a symbol of self and a means of identity affirmation.[68] Pearce and Caltabiano[69] used Maslow's hierarchy of needs to investigate travel experiences and found that motivations realized through positive experiences were distinctly different from those met by negative experiences. Positive experiences enabled individuals to realize higher-order needs of love and belongingness and self-actualization, whereas in negative experiences lower-order needs dominate. This represents a substantial body of literature attending to the hierarchical nature of leisure demand which can be presumed to apply also to heritage visiting and non-visiting. As such this literature gives insight into the potential structuring of Layer 3 of the columnar model into hierarchies of motives from concrete to experiential and intrinsic-terminal motives.

Leisure needs have also been characterized as being of two types: leisure-general needs and activity-specific needs, and as such offer a means to assess the substitutability of leisure activities.[70,71] This suggests that the hierarchy of leisure motives could be further sub-divided into leisure-general and heritage attraction-specific motives. Equally, the distinction between 'push' factors, which make individuals want to travel, and 'pull' factors that effect where individuals travel to, identified by Dann[72] and extended by others[73,74] offers a method of classifying an individual's motivations to visit or not to visit heritage attractions and further suggests a potential method of examining general and attraction-specific motives for visiting heritage attractions. Other research relevant to the columnar model and of potential use for a research agenda into heritage tourism includes research that appraises the influence of joint decision making between couples and families in the decision and motivation to travel;[75] and research which examines the effect of opportunity sets.[76–78]

Evidence as to the stability of motivations over time is contradictory. Some evidence suggests that motivations towards leisure visiting can be expected to vary over time: studies have demonstrated how motivations vary by experience level;[79] change following leisure participation;[80,81] and become more stable the greater importance individuals attach to motives.[82,83] A research agenda for heritage tourism needs to investigate which leisure needs and motives are stable over time and which leisure motives vary to enable this issue of stability to be incorporated as a sub-layer in Layer 3 of the columnar model.

The potential utility of the 'columnar' model

In terms of market development the primary utility of the columnar model is its potential to develop segmentations of occasional visitors and non-visitors to heritage attractions based on either the hierarchies of benefits individuals seek or avoid in order to fulfil needs (Layer 3) or the hierarchies of constraints they experience (Layer 2). To date, traditional segmentation techniques used to describe the demand for heritage have varied in their ability to predict visiting and non-visiting behaviour. The columnar model offers a new approach.

Past segmentations based on socio-demographic variables describing consumers in terms of age, gender, income and life cycle have presumed that large proportions of the population are otherwise homogeneous. Although the segments so defined are substantial and easily accessible via the media, often socio-demographics may not correlate with individuals' needs, perceptions and barriers, and as such socio-demographic data may not accurately predict or explain non-visiting and visiting behaviour.

In contrast, the columnar model facilitates 'benefit' segmentation at both an experiential and intrinsic-terminal level. It may be argued that benefit segmentation, which distinguishes homogeneous subgroups of potential consumers by their wants and

needs from a heterogeneous market of wants[84,85] is a key to potential market development by heritage attractions. Benefit segmentation guides message differentiation and capitalizing on deep understanding makes it possible to reach the target market, talk to them in their own terms and present heritage attractions as a bundle of benefits capable of satisfying needs.[86] Benefit segmentation thereby potentially enables managers to fine tune their products, and forms part of Layer 3 of the model for each column (or segment) of latent demand. The identification of such intrinsic-terminal benefits or experiences sought from tourism and leisure offers the potential of redefining or repromoting tourism products to meet these motivations, and thus convert demand into actual demand.

A number of studies have successfully grouped participants by their motives to fulfil concrete leisure needs, such as relaxation, escape from routine, and the desire to see interesting sights and meet new people.[87] As early as the late 1970s Goodrich[88] identified the advantages of benefit segmentation to promote tourism destinations. More recently, Legg and Kim[89] defined six segments of visitors to formal gardens based on six benefit dimensions. The columnar model can potentially aid the development of segmentations of this kind in museum and other heritage attractions and this utility forms a focus to applying the model. The columnar model is useful for developing segmentation appropriate to each type of non-visitor at each level of the motivation hierarchy (concrete, experiential and intrinsic-terminal benefits). Segmenting non-visitors by those end goals they seek to achieve from leisure and heritage experiences (experiential or intrinsic-terminal) is more potentially effective than segmentation by lower-order benefits (concrete) in developing the heritage product and message differentiation. In addition, concrete and intrinsic-terminal benefits may vary depending on the usage situation and purpose of visit. Extending benefit segmentation to include the usage situation and purpose of visit, person-situation segmentation[90] may offer the ability to further fine tune the product offer. Implicitly, such a segmentation combines the consumer focus of the columnar model with the managerial focus of the Manning–Haas hierarchy. By offering different products to different market benefit segments, benefit and person-situation segmentation suggest the potential for heritage attractions to adopt pricing differentiation strategies appropriate to each segment identified.[91]

Perhaps more useful is the concept of attribute deficiency (attributes perceived as deficient in heritage experiences) segmentation that groups consumers on the perceived deficiencies in the heritage product attributes.[92] As such non-visitors can be grouped by the combination of negative motivations that result from perceived heritage benefits not matching desired leisure needs. With this information, new products can be designed.

Alternatively, non-consumers can be grouped by their reaction to constraints using constraint hierarchies identified in Layer 2 of the columnar model. Jackson[93] and Williams and Basford[94] using cluster-analysis have segmented recreationalists by the combination of types of constraints they experience. Jackson identified six clusters according to the combination of constraints experienced. By grouping non-visitors by the combination of constraints they experience, constraint segmentation offers the suppliers of heritage experiences a number of constraints experienced by one group of non-visitors they can immediately address. However, managers may only have the capacity to help non-visitors overcome certain constraints, and the nature of these constraints needs to be researched. A heritage tourism research agenda will also need to investigate the utility of attribute-deficiency and constraint-segmentation over benefit and other segmentation techniques in understanding and communicating with different types of non-visitors.

Conceptually the columnar model suggests that the most effective segmentation technique would be one that combines both constraints and benefits sought, Layers 2 and 3. A research agenda for heritage tourism will need therefore to assess whether such a segmentation technique is possible and useful for heritage managers.

Conclusions

This paper has outlined a 'columnar' model of non-visiting behaviour based on hierarchies of motivations and constraints proposed as a framework useful to understand and investigate non-visitors to heritage attractions. Concrete reasons and constraints have been discussed, as has the need to determine the intrinsic-terminal reasons and constraints associated with these. The model proposed has been shown to be potentially capable of describing intrinsic-terminal, experiential and concrete motives and the hierarchical nature of constraints. Additionally the ability of the model to show 'intraction' and interaction of motivations and constraints and the relative strength of motivations and constraints has been identified. The discussion has considered the utility of the proposed model in potentially developing an effective segmentation technique for latent demand.

The model recognizes the heterogeneity of non-visitors in terms of identifying hierarchies of motivations and constraints capable of differentiating non-visitors by those factors that inhibit or preclude visiting of heritage attractions. Additionally, by understanding the hierarchical nature of leisure motives and constraints and assessing whether these are activity specific or leisure general, the model offers

both a potential means of assessing the substitutability of heritage experiences for other leisure activities and exploring whether and how non-visiting behaviour varies by heritage attraction type. Of ultimate benefit for tourism managers, the model offers a way of developing and assessing the effectiveness of various segmentation techniques for market development. By extending the columnar model to include visitors to heritage attractions the model suggests methodological approaches capable of addressing whether, and how, visiting and non-visiting varies in heritage tourism.

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Experiential Segmentation For Latent And Actual Museum Demand

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ABSTRACT

Focusing on the attraction base of tourism, this paper seeks to address the neglected issue of latent demand for visits to museums and other heritage attractions. It describes a multi-focused study whose aim it was to provide empirical understanding of latent and actual demand for museums capable of informing market and product development

Based on two contrasting museum styles, the study employs factor, cluster and discriminant analyses to build and validate the 'columnar model of heritage latent demand' (Davies and Prentice 1995) in order to assess the model's usefulness in terms of segmentation suitable for 'product' development, market development and promotion. In doing so, the study determines the differences in dimensions of multi-attribute experiences and constraints realised by the two styles of museum and identifies those experience and constraints dimensions which discriminate most between segments of actual and non-visitors. In addition, the paper goes some way to address a neglect in application of consumer behaviour literature to heritage attractions, and to latent demand in particular

The heritage industry has experienced unprecedented change and intensifying competition over the last fifteen years marked by an explosion in the number and type of museums opening to the public (Hewison 1987), and a recognition that the role of museums, and other heritage attractions, as scholarly collections and primarily educational in purpose as outdated (Vergo 1989). Calls for a visitor orientation in heritage management and research (McLean 1993) has highlighted the need to broaden the 'value' attributed to heritage tourism to include, for example, social welfare and non-educational gains such as cross cultural empathy, family entertainment and shared memories (Prentice 1996). Today, increasing research attention is being directed to the identification of the type and breadth of non-scholarly and quasi-educational experiences exchanged at heritage attractions

Despite this increased interest in consumer-orientation, most tourism and leisure research on museums and other heritage attractions has concentrated almost exclusively on the visitor and largely ignored the non-visitors latent in the customer profile (Merriman 1989) This focus ignores the 'value' attributed to heritage by those people currently not present in the visitor profile, and as such forfeits the potential economic and social gains that follow from expanding the tourism and recreation base for heritage visits The paper builds on a limited number of studies which have responded to calls for research to address issues of access to national heritage. In addition, research on visitors to heritage attractions is assessed in terms of its potential contribution to the study of latent demand. The assumption that visitors can inform an understanding of non-visitors is discussed to

determine the contribution visitor studies, and in particular those recent studies which have sought to determine the more abstract reasons and benefits sought in visiting (Prentice 1996), can make in the study of latent demand.

The 'columnar model of latent demand' (Davies and Prentice 1995) goes some way to address the above conceptual deficiencies and offers a typology of latent demand based on multi-attribute hierarchies of motivation and constraints. The model was conceived from an integration of leisure and consumer behaviour literature and in particular focuses on the contribution of the theory of planned behaviour (Ajzen & Driver 1992), experiential consumption (Lofman 1991, Holbrook and Hirschman 1982), leisure benefits (Driver et al 1991) and constraints (Jackson 1988). The model proposes a preliminary typology of latent demand by disaggregating actual and latent demand along dimensions of experiences and constraints.

Methodology

A two-stage qualitative-quantitative research design was followed. Informed by the principals of phenomenology, 30 qualitative interviews were conducted in respondents homes in order to capture their *real lived* experiences of leisure consumption, and, in particular, their consumption of built, cultural and heritage landscape. Four hundred interviews formed the second quantitative phase of data collection. Sampling was consistent across both stages and was based on a random sample generated from two electoral wards in Edinburgh. The two wards were chosen according to their different quartile positions on a index of social advantage to deprivation derived from multivariate analysis of 1991 Census data. Two contrasting collages of social history and archeology museum were used as visual prompts in the study in order to reflect the current diversity in museum style, or museology (Vergo 1989).

Preliminary Findings

Factor analysis identified 9 underlying dimensions of experience and 7 dimensions of constraint to account for 65% and 61% of the variance in the data respectively. These factors were input into cluster analyses to develop segments of museum demand. Six segmentation bases were developed to evaluate the key hypothesis that a combined experiential and constraint segmentation base would outperform both the experiential and constraint segmentation bases suggested in the literature, as well as those socio-demographic characteristics traditionally employed in heritage management, in its ability to predict propensity and actual visiting behaviour. Hierarchical cluster analysis using Ward's linkage and squared Euclidean distance provided initial cluster centers for K-means iterative analysis. Discriminant analysis highlighted segment predictors for each segmentation method and several behavioural indicators were employed to assess the utility of a combined experiential and constraint segmentation base over socio-demographic information in predicting museum usage.

Preliminary findings support the 'columnar model of latent demand' and suggest that segmentation incorporating experiences and constraints is superior in predicting demand than demographic information. The paper will expand on these initial findings and

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